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BALTIMORE, FEBRUARY 23, 1911.

TO ANXIOUS BENCHERS.

No, not a word from us on the sub-
ject—at this time.

DON'T TEAR YOUR SHIRT.

Panting patriots are hereby notified
that Representative Hobson of Alabama
has not yet opened recruiting offices for
his army to defend this country against
invasion by Japan.

ALWAYS SUSPICIOUS.

Tacking any measure on to an approp-
riation bill in the closing hours of
Congress is *prima facie* evidence that
the measure is one that cannot bear
open discussion before the intelligence
of the country.

RECIPROCITY.

That under the proposed reciprocity
agreement with Canada cattle, sheep
and hogs and fresh fish are to be ad-
mitted to the United States duty-free,
while there is to be a duty upon fresh
meats and fish packed in oil and in tin
boxes, ought to be enough to suggest
that reciprocity under such a system is
not designed to affect the cost of living,
however the talk in insincere generali-
ties about reciprocity may be intended
to meet a popular misconception that
the measure will have any direct appre-
ciable effect in reducing the price of
foodstuffs.

The proposed agreement is but an-
other form of the movement for free
trade in "raw" materials, a movement
misleading at many a turn and especi-
ally in muffling the fact that in honest
protective-tariff discussion no material
can be considered raw which represents

in any way the results of human labor.
Honest world-reciprocity would mean
abolition of revenue from imports,
throwing the burden of support of a
Government, loaded with extravagance
and increasingly so, directly upon indi-
viduals, the greater share of the burden
falling upon the individuals least able
to stand it, and without reducing the
cost of living.

Honest reciprocity would not be
framed so as to throw the burden of in-
direct taxation through the tariff upon
the great mass of consumers of finished
goods without helping in the slightest
degree, but rather hampering the great
mass of producers of materials.

Honest tariff legislation would avoid
the deceptions and the snares in mini-
mums and maximums, in countervailings,
or in drawbacks, which are virtually
rebates working out practically to
the advantage of a few against the
many.

In a multitude of schedules, whether
in a tariff bill or in a reciprocity agree-
ment, is the opportunity to deceive the
people into aiding international ambition
to become the master instead of
being the useful servant of all peoples.
Genuine reciprocity is not swapping
one knife for another knife of the same
kind, nobody gaining in the deal save
the go-between. It is not an inter-
change for the purpose of broadening
the markets for a limited number of
producers by diminishing the markets
for a great many producers, with sops
thrown in to gain support of special
selfishness or particular ignorance in
legislation. But that has been the un-
derlying scheme in most of the recipro-
city propositions of the past 15
years, and the Canadian project is not
free from it, and that, too, without the
framers of the agreement being aware
of it, in all probability. Reciprocity
for the special benefit of the great mass
of consumers in this country and Can-
ada would admit duty-free all the things
that they consume and which they
themselves cannot produce. Recipro-
city for the special benefit of the great
mass of producers in this country and
Canada, whether farmers, manufac-
turers, lumbermen or miners, would place
a duty upon the things that they pro-
duce, but which they themselves cannot
consume. In spite of efforts of pro-
ponents of reciprocity on both sides of
the line to demonstrate that the thing
is for the mutual benefit of both coun-
tries, the proposed agreement with Can-
ada really sacrifices the interests of
the great mass of both classes in both
countries for the benefit of the few who,
with world-embracing ambitions for
themselves, regardless of international
boundaries or national conditions,
would make exclusively their buying
markets cheap and their selling markets
dear, in both cases artificially so.

The essence of honest tariff or honest
reciprocity may be expressed in a few
words, making unnecessary any pre-
tense for a tariff commission or a tariff
board. Where "raw" materials are ad-
mitted free of duty or at reduced tariff
rates, articles made from such mate-
rials shall be admitted duty-free or at
correspondingly reduced rates.

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IMPROVED HIGHWAYS AS AN INVESTMENT.

T. Coleman Du Pont, president of the
E. I. Du Pont de Nemours Powder Co.,
has just given signal manifestation of
faith in improved highways as a means
of increasing the wealth of a State.
With a bill pending in the Legislature
looking to a State loan of \$750,000 for
such highway, he has offered to advance
\$1,000,000, or, if necessary, double that
amount to civil authorities in Dela-
ware to pay for the construction of a
great highway 60 miles long, across the
entire length of the State or to form a
company to carry on the task. Gen.
Du Pont wishes to make the road equal
in character to any in the United
States. If, under the constitution of
the State, the company project cannot
be carried out, it is planned to induce
the Commissioners of the three Dela-
ware counties to agree upon the con-
struction of connecting roads, making
one highway, to be paid for with the
money to be advanced by Gen. Du Pont.

He does not intend to give the money
outright—although he offers to give
\$100,000 to supplement State funds—but
he looks to some arrangement
whereby the county officials will turn
over to him the difference in taxation
up to the full amount of the \$1,000,000,
between the present assessment and the
values that will be created through the
construction of the highway in the
course of a few years.

Bearing up this point, the *Evening
Journal* of Wilmington says:

There is no doubt but that with a high-
way such as General DuPont has suggested
Delaware would develop wonderfully. Land
values in the three counties would leap, and
as a consequence each county, with a fair
assessment system, would get many thou-
sand dollars increase in taxes annually to
be applied to reimbursing General DuPont.

There would be a demand by non-residents
for Delaware farms, and the Delaware River
and bay and the Atlantic Ocean fronts of
the State would be transformed into pleasure
resorts like those along the New Jersey
coast. It would mean a new era for Dela-
ware, and all the more so because of the
improvements in train service that even-
tually are to be made for lower Delaware
since the Pennsylvania Railroad Co. has
leased the Delaware Railroad and allied
branches.

The State of Delaware owns thousands of
acres of land in Sussex county that will
leap high into values with the prospects of
good roads to connect the northern with
the southern end of Delaware, and attract
wealthy residents from other States and to
take up their summer residences in this
State. This land, some of it low and marshy
and some of it sandy and along the ocean,
has been sought more than once through
legislative enactments by scheming land-
grabbers, who expected to get it for a nomi-
nal sum, but if it is retained by the State
it will prove a valuable asset within a few
years that would go a long ways toward
paying off an issue of good-road bonds.

This expectation is grounded in the
generally recognized facts of the effects
of improved roads upon property values

in communities that have obtained
them. Mere road-building in itself does
not add to land values. But, by lightening
the task and the expense of getting
products to market, by facilitating com-
munication in country neighborhoods
and by increasing the attractiveness of
rural life, good roads add to the produc-
tive value of acres, attract population
from the cities and towns to rural
regions, either in making summer
homes or in truck-growing or general
farming, and thus accelerate the demand
for lands. The consequent added
value can hardly be called an unearned
increment. It has been made possible
by the improved highway. T. Coleman
Du Pont is willing to stake \$1,000,000
to demonstrate the proof of that proposi-
tion.

CUT-OVER TIMBER LANDS.

Recent statements that an English
syndicate is seeking to acquire for settle-
ment purposes between 30,000 and
50,000 acres of cut-over timber land in
South Alabama, that German farmers
are preparing to farm such lands near
Lumberton, Miss., and that interest in
like tracts in Louisiana is increasing,
are among the indications of a growing
appreciation of the great possibilities
for agriculture in the areas denuded by
the lumbermen. According to the latest
official estimates there were in 1908 in
this country 65,000,000 acres of cut-
over timber land that were not reforesting.
Of the total, nearly 22,000,000 were in the South. The distribution
by States was as follows:

States.	Acres.
Alabama	1,844,836
Arkansas	100,000
Florida	3,014,553
Georgia	1,428,820
Kentucky	200,000
Louisiana	1,292,000
Maryland	600,000
Mississippi	2,656,672
North Carolina	1,950,000
South Carolina	1,480,000
Tennessee	1,220,000
Texas	3,000,000
Virginia	1,471,806
West Virginia	1,400,000
Total.	21,578,681
United States	65,046,669

It is hardly likely that all of these
22,000,000 acres in the South are sus-
ceptible to profitable agriculture. Thou-
sands of them are on the Appalachian
heights, in which, although, farming is
successfully followed in vast tracts in
the aggregate, in other parts natural
difficulties forbid the undertaking. But
there are millions of acres, especially
in the yellow pine regions, which ex-
perience with portions of them has
demonstrated to be ready to yield
plentiful harvests under proper cultivation.
Georgia, Mississippi, Louisiana,
Texas and other States bear testimony
to that fact.

Comparative cheapness of these lands
and their productivity in a climate
which permits the growing of three
crops a year have not, perhaps, led to
the demand for them that might nat-
urally be expected, for the reason that
the removal of stumps from them has
been regarded as an expensive under-
taking. But the increasing demonstra-

tion of their utility has been accompanied by improvement in methods for removal of the stumps economically, it being possible now to use a machine that will handle them at a cost of about \$15 or \$20 an acre. The mechanical stump-puller, however, usually treats the stump as mere obstructive waste to be destroyed as expeditiously as possible. But the expense of removal, whether by the stump-puller or by dynamiting, a course pursued by some men, may be reduced considerably with the perfecting of devices for the utilization of the stumps in the derivation of important products. Experimentation has already progressed in the development of processes for obtaining these products. It is estimated that the annual waste in lumbering operations in this country amounts to about 15,000,000 cords, from which, by means of steam distillation or of destructive distillation, products valued at \$11,000,000 could be derived. Perhaps one-fourth of that annual waste is in pine stumps. If that be so, it is easily understood how that, with suitable equipment, the stumps in an acre of land might yield in turpentine, tar, tar oils and charcoal enough to pay for bringing the land into shape for farming. The subject is a fascinating one to everybody interested in the utilization of so-called wastes as a part of the full realization of the agricultural possibilities of the South.

INTERESTED IN THE PROGRESS OF THE SOUTH.

Characteristic of the interest taken by intelligence in the North and West in reliable evidences of progress made by the South are a couple of comments based upon a recent article in the MANUFACTURERS RECORD, summarizing briefly plans of the past year for spending millions of dollars upon buildings for various educational institutions. The Troy (N. Y.) *Times*, one of the most alert papers in its part of the country as to material happenings of value to the South, says:

Aside from the extraordinary industrial growth of the South within recent years there has been nothing more remarkable than the educational development of that section. This is something that entitles the South to infinite credit and is an assurance of progress in a direction that promises the highest benefits, moral, intellectual and material. An illustration showing what is going on is furnished in a review of the situation by the MANUFACTURERS RECORD of Baltimore, which goes into the matter in much detail. * * * There are special features of the exhibit in the MANUFACTURERS RECORD that cannot fail to impress the careful observer. The fact that liberal provision is being made for training colored as well as white youth is most satisfactory as indicating appreciation of the merits of any device that shall tend to raise the negro from ignorance and helplessness. Another thing that will command attention is the character of the buildings erected. While it is no doubt necessary to restrict expenditures so that many schoolhouses are of very ordinary construction, though comfortable and convenient for the purposes for which they are intended, illustrations accompanying the article in question show a splendid array of handsome and commodious buildings, commanding admiration for their architectural and artistic appearance. This means that the South appreciates the fact that beauty may be made the handmaiden of utility, and that the young mind which is being formed by modern educational influences will be quickened and enriched through association with attractive surroundings.

The Pittsburg (Pa.) *Dispatch*, referring to the same exhibit, says:

No better evidence of the progress of the South can be cited than is put forward by the MANUFACTURERS RECORD in its current issue, showing that more than \$40,000,000 have been appropriated for new school buildings in the South in the past year. The

Southern States have hitherto lagged behind the rest of the country in expenditures for educational purposes, but with the industrial and commercial expansion of the new South has come this remarkable increase in the attention and appropriations given for education.

Practically every Southern State is represented, from Mississippi with a little short of a million, Alabama more than a million and a half, Georgia over three millions, Tennessee more than two and a half millions, the Carolinas with nearly a million and a half each, Kentucky and Florida a million each, and then Texas with over six million and Oklahoma with over four. These latter, of course, represent the development of facilities to meet great population increases, but in the older States the appropriations represent increased prosperity, commercial and industrial, and the prompt expenditure of a share of that prosperity in providing for better citizenship. The South has reason to be proud of its showing, and the North rejoices with it in this splendid educational advance as the first fruits of its material progress.

"Increased prosperity, commercial and industrial, and the prompt expenditure of a share of that prosperity in providing for better citizenship"—that is the whole explanation of the educational zeal in the South in a nutshell. It was manifested in other forms with especial vigor in the 15 or 20 years preceding the war. That struggle, placing the South in the direst poverty that persisted, in diminishing degree, for nearly 20 years, checked the expression of that section's ability to respond to a natural instinct to provide for better citizenship. But, with returning means to provide educational facilities, the South resumed its interrupted task of a generation earlier, and since the change at the opening of this century in cotton, from a poverty crop to one now yielding annually close upon \$1,000,000,000, there have been more and more liberal expenditures of public moneys, not only for schools, but for municipal, county and State buildings, improved sewerage and drainage, streets and other highways and divers public improvements of many kinds. It is most significant, however, that in the past 40 years annual expenditures for common schools alone in the 16 States and the District of Columbia, in which in 1861 slavery was a recognized institution, have increased from \$12,000,000 to more than \$50,000,000; that in that period of the \$1,000,000,000 that have been spent in this way nearly \$200,000,000 has been spent upon common schools for negroes, and that, with a population 3,000,000 less than the population of the whole country in 1860, the South is now spending upon its common schools more than twice as much money as the whole country spent 50 years ago.

BUILDING UP A FARM.

Announcement that samples of Maryland corn raised on the farm of Mr. C. Bosley Littig of Baltimore won second prize at the recent National Corn Exposition at Columbus, Ohio, is another illustration of what may be done in building up run-down land. Mr. Littig, who has been in the grain, hay and mill feed business in Baltimore, bought some years ago near Van Bibber a farm which had been practically abandoned for agriculture. Applying to the handling of the proposition the business methods that had brought him success in other lines, he has been able to bring the land into producing more than two tons of mixed hay to the acre, or 30 bushels of wheat to the acre, or corn crops that are prize winners. An important element in the building up of this worn-out farm has been cattle feeding, and some of the results of that

were recently described in the *American Agriculturist* as follows:

On September 15, 1909, he bought at Stock Yards in Baltimore some cattle that had averaged 735 pounds in Chicago, but had lost 75 pounds by the time they arrived in Baltimore and 25 pounds more when they reached his farm, making their average weight 635 pounds. They cost him \$3.90 a hundred pounds delivered at Van Bibber, and when sold early in June showed an average gain of 377 pounds a head, and sold for 6½ cents at Van Bibber, which would probably mean about 7½ cents at Baltimore. These cattle were allowed to take pot luck until the middle of December and were roughed in the staple mostly on wheat straw, fodder and some cob meal until the last of January, when he commenced to feed them fodder and straw. These were cut and a half pint of molasses, a half pound of cottonseed meal, two pounds of middlings mixed together were given night and morning. When these were not fed cob meal was substituted. Finally, these cattle were brought up to a feed of one quart of molasses, two pounds cottonseed meal and four to five pounds of middlings, alternating with cob meal. Very little hay was fed, plenty of cut wheat straw and fodder was given. The cattle were turned out to grass May 10 and fed on it for two weeks. Owing to the rains the grass was watery continually. A second lot of cattle shipped about July 1 showed a gain of 405 pounds, making a gain of 28 pounds each over the first lot in two weeks.

In this experience are hints of value as to soil conservation and soil restoration worthy of the attention of men long accustomed to farming as well as of beginners.

TRACKLESS TROLLEYS IN AMERICA.

A company has just been formed to operate a trackless trolley system in Washington county, Maryland, and also in the adjacent counties of Jefferson and Berkeley, West Virginia, on the other side of the Potomac River. A franchise is to be sought immediately in Martinsburg to put four miles of the route in operation as speedily as possible.

The trackless trolley is a new thing in this country, although it has been used in Germany and Austria for several years. The vehicles are large electric omnibuses operated like trolley cars, using the overhead method of conveying current, but they may be run on any good roadway. As the name implies, no track construction is necessary to the establishment of a trackless trolley line. A reasonably smooth road must be had, along which poles and trolley wires are erected and connected with a powerhouse, as in the case of an electric railway. If power can be purchased from a plant already established, the only new construction requisite is that of the overhead work. Given these things, with a sufficient number of vehicles, and the system can be operated for the transportation of freight and passengers.

As compared with an electric railway two things are gained by the use of a trackless trolley line—one is less expense for installation, the other is diversion of movement for the vehicles. By means of flexible trolley connections, they are enabled to move from side to side of the road to take on or set down passengers, and to turn out of the way of other conveyances. In various particulars they behave very much as automobiles operated by electricity. When two of the omnibuses have to pass each other they exchange trolleys; that is, the trolley connection of one car is given to the other, so that the little trolley carriages running on the wires overhead to collect current do not have to pass one another. The carrying capacity of the average trackless trolley car is not, it appears, so great as that of the aver-

age electric railway car, but it is sufficient for certain localities where travel is moderate and where too much expense could not be assumed for installation, and it finds there opportunity for a usefulness peculiar to itself.

Just now the world is much interested in new means of transportation for rural or semi-rural districts, where something better than horse-drawn vehicles is demanded for frequent intercommunication, but where steam roads or electric railways would prove unprofitable. Railroads with gasoline motor cars are used in some regions; in others steam motors, and in still others a combination of gasoline and electricity in the same vehicle. Differing tastes and conditions demonstrate that each of these several types have work to which they are peculiarly suited, and the entrance of the trackless trolley into the American field warrants remark that it will doubtless find friends and advocates in places other than that in which it is expected to soon begin a career on this side of the Atlantic Ocean. The experiment between Hagerstown and Martinsburg will be observed with attentive interest, especially by persons concerned in transportation work elsewhere.

PROMISED BOON IN THE APPALACHIAN FOREST LAW.

Final passage by Congress of the bill for the conservation of the forests and the water supply of certain States is the promise of a beginning of the carrying out of a plan of constructive statesmanship of the highest order that has been before the Congress for six or seven years, and has been advocated by the MANUFACTURERS RECORD for a much longer period. It is the plan of establishing in the Southern Appalachians protection of the head-springs of many of the most important rivers of the United States. Briefly stated, the main provisions of the act are as follows:

Individual States permitted to enter into compact with one another for the purpose of conserving forests and water supply.

The Secretary of Agriculture authorized to co-operate with any State or group of States in the protection from fire of the forested watersheds of navigable streams.

Appropriation annually until 1915 of not more than \$2,000,000 for use in the examination, survey and acquisition of lands at the head waters of navigable streams, or of those that may be made navigable.

Appointment of a National Forest Reservation Commission to determine the details of the purchase of lands found to be necessary to the regulation of the flow of navigable streams, protection of the rights of the several States and of individuals, and the observance of constitutional limitations.

Objections upon constitutional grounds to this long discussed plan have been met by making distinctly the protection of navigable streams, over which the Federal Government has jurisdiction, the primary object of the measure. Fidelity to that object cannot fail to bring about all the desired results so beneficial to an area of the country far greater than that in which the immediate operations of the project shall be.

It is generally understood that the provisions of the act will be applied to the highlands of New England and the Appalachian heights in the two Virginias, the two Carolinas, Georgia, Alabama, Tennessee and Kentucky. In those Southern mountains rise the

waters which feed between 9000 and 10,000 miles of navigable waterways in the South. In these Southern Appalachians are streams having an estimated maximum horsepower of 7,000,000, of which hardly 900,000 have been developed, while in the New England mills rise streams having an estimated maximum horsepower of 1,800,000, of which 1,112,000 have been developed. Maintenance of the steady flow of these Northern and Southern streams means the maintenance of the opportunity to develop nearly 9,000,000 horsepower for industrial purposes, in addition to the preservation of the navigable stretches of the greater streams for internal commerce and foreign trade.

Destruction of the forests still remaining as protection of the head-springs of these rivers means not only a diminution of the flow of the springs and, consequently, of the flow of the rivers, but also destructive floods sweeping away in the beginning the surviving protective elements of the mountainsides, desolating manufacturing communities and farm lands at the fall line or in the lowlands, and filling up the channels of the rivers with silt and other debris. A careful estimate shows that the damage wrought between April, 1901, and April, 1902, on streams in part of the area proposed to be included in the Appalachian forest reserve amounted to \$18,000,000. The damage was not confined to the sweeping away of bridges, mills, farm crops, dwellings, roads, etc., and the covering of fertile acres with detritus, but in the carrying of sand and rocks and other obstacles into the channels of the navigable streams, it extended to the undoing of the work of river improvement.

Most of this damage, which has assumed greater and greater proportions with the expansion of lumbering operations in the mountain regions, is preventable. The act just become law is the beginning of the prevention. It will not only enable the States and the general government to co-operate positively in the maintenance of the surviving forest and in the reforestation of cut-over lands, but will make such a policy an object lesson for individual communities and for the lumbermen and farmers in the Appalachian region and in other parts of the South in the handling of timber supplies in such a way that, instead of being a source of wealth to be exhausted like a deposit of coal or of iron-ore, they may be handled very much like any other crop as a means of permanent wealth.

George R. Martin of Martin & McCanless, general contractors, Salisbury, N. C., writes to the MANUFACTURERS RECORD:

I am a subscriber to your valuable publication and would not be without it for ten times the cost.

SAMUEL WITTKOWSKY.

Samuel Wittkowsky, who died suddenly at Charlotte, N. C., last week, was a fine type of the men who, coming from other parts of the world, have made successes in the South. Born in Prussia in 1835, and a victim of many vicissitudes in his youth and early manhood in this country, including heavy losses in the war, he built up a valuable manufacturing and mercantile business at Charlotte in the early seventies, and later achieved national reputation as a pioneer in the building and loan field. He was one of the most public-spirited men in North Carolina, and served his community faithfully in municipal and civic office.

Expanding Use of Motor Trucks in Business.

[Written for the Manufacturers Record.]

The third annual Automobile Show given under the auspices of the Automobile Club of Maryland at the Fifth Regiment Armory this week may be accepted as representing the attitude of the automobile industry toward the South in general. For this reason this exhibit of at least 226 machines is of more than local interest, and will be noted and discussed throughout the South, as well as in this immediate vicinity, as the season's automobile event. It is one of the most notable exhibits of a growing industry that has ever been made in this country, and it is made in a most strategic point.

The great and constant development of good roads throughout the South and Southwest, as reflected in every edition of the MANUFACTURERS RECORD, combined with the attractions of climate and scenery, fasten the attention of the automobile industry upon the possibilities of increasing business in this direction. Baltimore, as a gateway to the South, and its leading city, forms the natural headquarters for the representatives of the automobile trade of that section, and is the natural location for an exhibit of general interest, and one which will result in large returns in increased sales through Baltimore influences.

The special inducements which Baltimore offers to buyers in all the wholesale lines has a direct and important bearing on this city as an automobile center, and the dealers represented at the Automobile Show will profit by this feature, already long established by Baltimore business interests.

The automobile industry having reached such immense proportions in the number of manufacturing plants established, must look to every opportunity for expansion and increased possibilities of sales, and to this end the commercial vehicles of all kinds are assuming importance. Not only the business man and the doctor and the inspector of important building operations must have his automobile for "working purposes" as distinguished from pleasure driving, but the wholesale and retail merchant, the manufacturer, with his hauling necessities, and the farmer, with reasonably good roads in his locality, are all finding the automobile, the motor truck and the motor traction machines to be good and faithful servants. The commercial vehicle, generally known as "motor truck," has an important part in this exhibit, and it is expected that a most important expansion in the automobile trade will be in this class of machines, the demand at present far exceeding the immediate output.

The display of motor trucks at this show is an integral part of the exhibit, and not separate and apart, as in the New York and Chicago shows, and the whole exhibit has the advantage of being on one large floor. The admirable construction of the Fifth Regiment Armory permits of 75,000 square feet of display area, said to be about 50 per cent. greater than the floor of the Madison Square Garden, where the New York show was held. The beauties of the \$7500 passenger touring car may be admired, while nearby a four-ton truck is being minutely studied for its reliability and working powers.

The wide knowledge throughout the country as regards the passenger automobile, runabout, family car and touring car will soon be extended to the motor truck, and its use in large cities is already considerable. They are seen every day not only on the streets of Baltimore, but in distant sections of the county and State,

where they are distributing with most satisfactory reliability and economy merchandise that was formerly carried by rail or laboriously-drawn horse vehicles.

In Chicago the number of motor trucks used has increased from 45 three years ago to a present number of about 900, and New York city claims over 2300 motor trucks of all kinds carrying on transportation from the heaviest hauling of the large industrial, shipping and building concerns to the light delivery wagons of the retail firms. The popularity of such power vehicles is spreading rapidly all over the country, and the hills or badly-paved streets of smaller towns have been largely overcome by the strong and reliable construction of the motor truck, which is the development of many years' experience with the passenger motor car, with the necessary modifications for heavy work.

An endurance test of a run from Chicago to Milwaukee and return, held recently in bad weather and over roads that were in poor condition, due to the weather and other causes, gave very interesting results. The winning car was a four-ton machine, which covered the distance of 230 miles at the rate of eight miles an hour, with an economy of gasoline and oil giving cost per ton mile of 11 mills. A 1000-pound truck made the run at a rate of 12 miles per hour, at a cost per ton mile of only 25 mills. Another heavy truck made the run from Detroit to New York, 987 miles, in a fraction over 53 hours. It is roughly estimated that a motor truck can easily do the work of three teams in certain lines, and can be depended on to equal two teams in almost any line where they may be available.

The general adaptability of the power generated by the motor car is also adding to its usefulness, especially in localities distant from other forms of available power. The motor truck that carries the farmers' produce to market may be used to operate his threshing machine, or a water pump for the pressure tank or stock watering tank, or a sawmill or stove, wood sawing plant. It can, of course, be used for any purpose to which a small engine and belted machinery is applicable, and these are numerous on a modern well-equipped farm.

The gasoline engine in all its forms, and especially as an automobile motor and power-boat engine, is converting the United States into a nation of men of mechanical ability, and as this education along mechanical lines increases and the machinery improves in mechanical construction, the reliability of motor engines will continue to increase, until as much reliance may be placed on such power as any other of steam or animal, all of which have a certain degree of limitation and liability of breakdowns and accidents. The application of gasoline engines to life-boats by the United States Life Saving Service, where the nearest approach to perfect reliability is demanded, marks a long step in advance, as the gasoline engine was thoroughly tried and tested before being accepted as a part of the equipment of that service.

Between the automobile as a vehicle for purely pleasure driving and the motor truck for working uses lies its use as a business car. Nearly every city has a need for automobiles for the transportation on business of some of its employees, for inspection work in distant parts or at points not easily reached by other means, for the fire department and the health department, where the element of time is important, etc. Physicians have exten-

sively adopted the automobile as a necessary part of their transportation facilities in their practice, and every business man appreciates the need of the motor car for his personal transportation to and from his office or business location.

The electric vehicle is represented in this exhibit. Its lightness, simplicity and the reduction of cost of running due to improved storage battery systems and continued decrease in cost of electric energy in many localities, gives increased interest to this element of the exhibit. Motor cycles are also extensively shown, and evidently gain in importance with each successive motor exhibit.

The developments of the automobile industry in the last few years, with its hundreds of factories, thousands of dealers and salesmen, hundreds of thousands of workmen and millions of money invested, are familiar to all interested in them, and the continually growing field for the use of motor trucks and electric vehicles, as well as the original passenger cars, will only add to the present state of development of the industry.

Electric vehicles, including heavy trucks, are doing successful work, and will be of particular interest in the trade with the South and Southwest, where hydroelectric plants are being developed on a constantly-increasing scale, making electric energy an economical power for charging storage batteries. The increased capacities and decreasing costs of these storage batteries, and the growing knowledge of their proper care and use, fostered by the educational features presented by the firms manufacturing them, all bespeak a continual growth in their general use.

The exhibit of accessories, spare parts, various fuel and lubricating oils, gasoline storage outfits and other supplies is quite extensive and interesting. Among the cars exhibited, with the firms manufacturing them, are the following:

Abbott-Detroit, the Abbott Motor Co., Detroit; Buick, the Buick Motor Co., Flint, Mich.; Haynes, the Haynes Automobile Co., Kokomo, Ind.; Kissel, the Kissel Motor Car Co., Hartford, Wis.; Babcock, the H. H. Babcock Company, Waterford, N. Y.; Locomobile, the Locomobile Company of America, Bridgeport, Conn.; Crawford, the Crawford Automobile Co., Hagerstown, Md.; Moon, the Moon Motor Car Co., St. Louis, Mo.; Kline, the Kline Automobile Co., York, Pa.; Lozier, the Lozier Motor Co., Detroit; Pierce-Arrow, the Pierce-Arrow Motor Car Co., Buffalo; Franklin, the H. H. Franklin Manufacturing Co., Syracuse; Ford, the Ford Motor Co., Detroit; International, the International Harvester Co., Chicago; Interstate, the Inter-State Automobile Co., Muncie, Ind.; Maxwell, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y.; National, the National Motor Vehicle Co., Indianapolis; Hudson, the Hudson Motor Car Co., Detroit; Mack, the Mack Bros. Motor Car Co., Allentown, Pa.; Oldsmobile, the Olds Motor Works, Lansing, Mich.; Stevens-Duryea, the Stevens-Duryea Company, Chicopee Falls, Mass.; Overland, the Willys-Overland Company, Toledo; Everitt, the Metzger Motor Car Co., Detroit; Packard, the Packard Motor Car Co., Detroit; Autocar, the Auto-Car Co., Ardmore, Pa.; Regal, the Regal Motor Car Co., Detroit; Velie, the Velie Motor Co., Moline, Ill.; Paige-Detroit, the Paige-Detroit Motor Car Co., Detroit; Alco, the American Locomotive Co., 1886 Broadway, New York; Jackson, the Jackson Automobile Co., Jackson, Mich.; Pullman, the Pullman Motor Car Co., York, Pa.; Simplex, the Simplex Automobile Co., 1862 Broadway, New York; S. G. V., the Acme Motor Car Co., Reading, Pa.; Rauch and Lang, the Rauch &

Lang Carriage Co., Cleveland; Spoerer, the Carl Spoerer's Sons Company, Baltimore; Mitchell, the Mitchell-Lewis Motor Co., Racine, Wis.; Stoddard-Dayton, the Dayton Motor Co., Dayton, O.; Marmon, the Nordyke & Marmon Company, Indianapolis; Cadillac, the Cadillac Motor Co., Detroit; Atterbury, the Atterbury Motor Car Co., Buffalo; Moline, the Moline Automobile Co., East Moline, Ill.; Gaeth, the Stuyvesant Motor Car Co., Cleveland; White, the Waltham Manufacturing Co., Cleveland; Winton-Six, the Winton Motor Car Co., Cleveland; Garford, the Garford Company, Elyria, O.; Flanders and E. M. F., the E. M. F. Co., Detroit; Grabowsky, the Grabowsky Power Wagon Co., Detroit; Peerless, the Peerless Motor Car Co., Cleveland; Chalmers, the Chalmers Motor Co., Detroit; Huppmobile, the Huppmobile Car Co., Detroit; Oakland, the Oakland Motor Car Co., Pontiac, Mich.; Kelly, the Kelly Motor Truck Co., Springfield, O.; Rapid, the Rapid Motor Vehicle Co., Pontiac, Mich.; Correja, the Correja Motor Car Co., Passaic, N. J.; Sampson, the Alden-Sampson Manufacturing Co., Detroit, and Pittsfield, Mass.

The accessories and supply exhibits are made by the following Baltimore firms: Auto Supply Co.; Auto-Tire Preserver Co.; S. F. Bowser & Co., care of E. M. Denton; Baltimore Buggy Top Co.; Club Garage; Charles Elliott & Co.; Hydraulic Oil Storage Co. of Maryland; H. W. Johns-Manville Co.; R. Milton Norris Company; Peace & Peace; L. Sonneborn Sons; Scott Demountable Rim Co.; Southern Auto & Marine Supply Co.; F. W. Sandruck, and the Standard Oil Co.

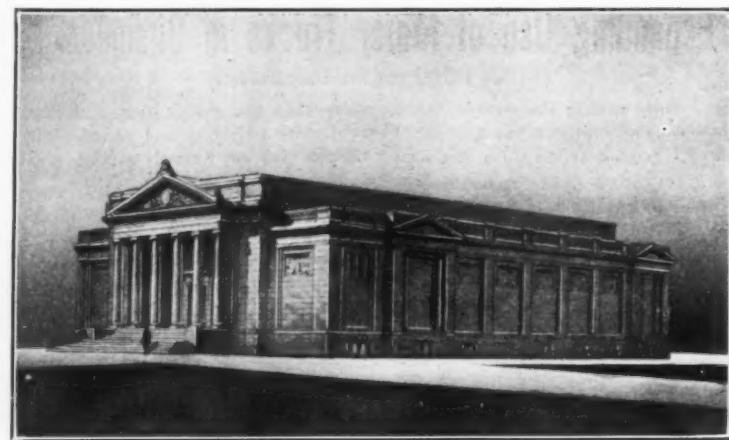
The following Baltimore firms exhibited motor cycles: Chase Motor Co., Howard A. French & Co., Little Joe Weisenfeld Company and F. W. Sandruck. A number of truck bodies displayed were built by the King-Hosbach Company, Baltimore, and by the Leonhardt Wagon Manufacturing Co., Baltimore.

The committee in charge of the Automobile Show consists of Dr. H. M. Rowe, chairman; H. Milton Luzius, Thomas C. Young, William Duck, Charles I. Callahan, H. J. Sturdevant, Joel C. Nassauer, Joseph M. Zamoiski and A. Stanley Zell. H. Milton Luzius, as secretary of the Automobile Club of Maryland, had the active management of arrangements for the exhibit. The splendid illumination and decoration of this large armory, and the comprehensiveness of the display, evident in every way, is a matter of credit to the managers and the enthusiastic participants.

A Combination Plant.

A suggestion to students of industries contributory to the development of small communities is made in a letter to the MANUFACTURERS RECORD from J. V. Pomeroy, president and general manager of the Oxford Water & Electric Co. and Oxford Ice Co. at Oxford, N. C., who writes:

"The combination which we operate, viz., water, light, power, ice and coal, can be operated to advantage in most small towns; in other words, one helps the other to a considerable extent. It takes some time, however, to build up a business sufficiently large to make it a paying one, but if the plant should be located in a section where there is a good outside territory for ice it can be helped in this respect very materially; in fact, this is a necessary requirement. There is no doubt whatever but that such a plant is more useful in building up a town than most any other kind of business, and it would pay any town for its citizens to organize such an institution and back it up if they desire to promote the growth and welfare of their own town."



CONFEDERATE MEMORIAL INSTITUTE.

This view is from the photograph of a design accepted for the Confederate Memorial Institute, to be erected at Richmond, Va.; design selected in competition in which 67 architects participated; Bissell & Sinkler of Philadelphia, Pa., furnished the accepted design; plans called for dimensions 60x160 feet and 50 feet high; one story; face of Southern granite up to floor line; Southern marble above floor line; fireproof construction; Doric design; 16 galleries grouped around central hall; estimated cost, \$150,000.

AN EDUCATION IN CEMENT.

The Wonderful Display of Products at Chicago.

[Special Cor. Manufacturers Record.]
Chicago, Ill., February 20.

The fourth annual Cement Show, which has just closed here, after holding forth at the Coliseum for seven nights, maintained the reputation that the Cement Products Exhibition Co., under whose auspices they are held, has created for them. In its every phase the show this year was striking, interesting and beneficial to every one of the thousands who attended.

The exhibitors, numbering all of those who are the real factors in the manufacture and use of cement, displayed the very latest developments in the industry, and that the visitors had real interest in them was well evidenced by the careful and detailed manner in which they investigated the exhibits and carried away with them literature that would give them full information on the subjects they were desirous of informing themselves.

But not only was the show of great value in distributing educative information regarding cement and its uses, but the visitors bought equipment, so that good business was done by a great many of the exhibitors. Perhaps the most striking comparison to convey exactly the full meaning and value of these shows is to classify them as department stores of cement and its uses, because here the inquirer can secure exhaustive information on every phase of the industry and obtain it from the most important interest in their various lines.

With some variations, the decorations and selling provided for the show were quite similar to those at the New York Cement Show last December. They were certainly most effective, and, moreover, were typical of the industry, so that in its every feature the exhibition truly represented in a very striking and impressive manner the great and varied possibilities of cement and the best equipment to use to get the desired results.

At this show the fact has been more fully demonstrated that the exhibitions are taken advantage of by those cement users who want to investigate and buy and utilize the latest improvements, and they know that the best place to secure all of this information is by becoming a regular visitor to such annual events, whether they be held in New York or Chicago.

Perhaps the best way to give some idea of the completeness of the show is to

quote a partial list of the things exhibited. This list includes concrete mixers; cement brick machines; cement block machines; machines and molds for sewer and drain tile; molds for burial vaults; fence posts, sidewalks and curbs, porch columns, vases, etc.; special farm systems for monolithic concrete construction; wheelbarrows, carts and wagons especially built for concrete work; buckets, belts, chains, gears, hoists and elevators, contractors' tools, etc., all needed in some one phase of cement work or another; testing equipment; concrete piledrivers and pile systems; sand and gravel washers, pumps and special machinery for preparing the aggregates; rock crushers; reinforcing material, including wire, rods, bars and metal lath; fireproof metal doors, windows and fittings; waterproofing materials; ornamental cement products; sand, stone, gravel and other aggregates; special systems of reinforcing, and special metal window frames for factory purposes, so as to allow more daylight to enter the structures.

As previously stated this list is only a partial one, but is sufficient to bear out the statement that there are exhibitors at these events who can supply all the latest information and equipment necessary to undertake the use of cement in any form.

The exhibits of the cement manufacturers are always of especial value and interest, because they illustrate more than anything else the varied artistic possibilities of the material they make. Moreover, they emphasize the fact that cement can be used in obtained architectural effects that would never be possible with any other materials. Through their association the cement manufacturers have an exhibit showing examples of varied work built of this material, and nothing can convey to the minds of visitors the real value and adaptability of cement so impressively as photographs of work actually accomplished.

The central feature of the show, that is, the one usually placed in the center of the hall, was ornamental concrete lamp posts which the city of Chicago is placing by thousands on many of its main drives and boulevards. These posts, which are cast in iron molds, have an exterior veneer composed of white cement and granite screenings, and treated so as to expose the aggregates. They are capped with bronze castings of artistic design, and surmounted with one large globe containing the light. The cost complete, including concrete bronze work and lights, was about \$50

each. Their effect was not only architecturally beautiful, but very striking when seen on the boulevards. So ideally are they suited for the purpose that several other cities not only in this country, but also in Europe, have adopted them.

Altogether this show was truly reflective of the broad educative and intelligent manner in which cement and its possibilities have been developed. The material today occupies a strong position as a constructive material, but the results achieved have in the most part been brought about through the publicity work being conducted along sound lines.

WM. H. STONE.

BUILDERS' SUPPLY ASSOCIATION.

Annual Convention of This National Body at Chicago.

[Special Cor. Manufacturers Record.]
Chicago, Ill., February 22.

The twelfth annual convention of the National Builders' Supply Association was held here this week, and, as usual, brought together those throughout the country who are largely charged with selling building materials of all kinds. Many manufacturers of these materials were also present.

The program covered a number of very interesting subjects, and, as questions and discussions followed each paper, an opportunity was given everyone to obtain all information desired. In addition a question box was inaugurated, and this brought into discussion many varied subjects and enabled those attending to get a lot of first-hand knowledge that would unquestionably prove of great value to them.

Among the papers read and discussed were the following:

"The Fundamental Principles Essential to Successful Organization Work," by George E. Green, Shredded Wheat Company; "The Man Element in Practical Sales Results," by Harry N. Tolles, the Sheldon School, Chicago, Ill.; "Building Brick as a Factor in National Conservation," by E. F. Knight, sales manager, the Bradford Pressed Brick Co., Bradford, Pa., and R. C. Penfield, president American Clay Machinery Co., Bucyrus, O.; "Cost Systems for a Retail Yard," by William A. Jordan, the Charles Warner Company, Wilmington, Del.; "The Bad Practice of Extending Credit and Terms Beyond the Reasonable Limits Recognized as Standard Practice—Where It Leads To—The Remedy," by Harry P. Boyd, National Building Supply Co., Baltimore, Md.; "The Square Deal in the South," by Charles L. Johnson, the Southwestern States Portland Cement Co., Dallas, Tex., and "Liberty and Law in Association Work," by C. D. Joslyn, Detroit, Mich.

The annual banquet was held on the last evening of the meeting, and was presided over by President Charles Warner of the association.

According to the Census Bureau, 26,421 establishments in 1900 killed 68,814,300 animals of all kinds, of which 36,443,000 were hogs, 14,067,000 sheep and lambs, 12,337,000 beefs, 5,395,000 calves, 135,000 goats, 25,000 kids and 1000 other animals. From them 32,371,300 hides and skins were obtained.

Representative landowners of the St. Francis basin in Arkansas are agitating an issue of \$2,000,000 of additional bonds for the completion of the levee system, the bonds to be issued in batches of \$400,000 annually.

It is reported that James Craig of Augusta county, Virginia, will experiment with 5000 oil stoves as a means of combatting frost in his apple orchards.

Development in the Houston-Galveston District.

[Special Correspondence Manufacturers Record.]

Houston, Tex., February 17.

Unmistakably the stamp of a tremendous present and future development is on the entire Houston-Galveston district, greater and more obvious at the present time than ever in the past. Of significance as an expression of the spirit of the people not less notable than the purpose for which the money is to be expended was the almost unanimous vote given by Houston and Harris county in favor of a bond issue of \$1,250,000 to be handed over to the United States Government as the local contribution to widen and deepen the Houston-Galveston ship channel, which work will be carried out at a cost of \$2,500,000. That 95 per cent. of all the votes cast should have been in favor of this enterprise is a demonstration of the unanimity of public opinion here in favor of improvements of the most important kind, and with such team work, and with such an asset of enterprising citizenship, there cannot fail to be built up here a city of the first importance, even were its location less conspicuously favorable than is that of Houston and the centers of development between here and the Gulf.

To one who has watched cities grow, the country over, the conclusion is unavoidable that the combined forces and the people at work in behalf of this section will within a few years bring about such a growth in the Houston-Galveston district as will establish a population many times the hundred thousand that Houston and suburbs at present contain. There have been wonderful strides made in the last five years in Houston. Within that time the skyscraper era has commenced, until the appearance of Houston has been entirely transformed. It is apparent, however, that what has been done up to the present time is simply in preparation for the great future which Houston is to see at a comparatively early date.

Commerce and manufacturing have provided a basis for a considerable development here, but of not inferior influence has been the settlement of the lands around Houston by Northern farmers. In spite of the opposition of cattlemen, who are loath to see their ranches cut up into small tracts, there has been a continuous encroachment on the larger ranges, until a movement is marching on with irresistible force that will in the course of time transform all the acreages in this vicinity into twenty, ten, or even smaller orange, fig and truck farms.

The development of port traffic at Galveston and along the ship channel, great as it has been during the past decade, is destined to see a much greater expansion with the opening of the Panama Canal and the centering in the Gulf of Mexico of the world's greatest maritime activity. Students of events in abundance foresee the bringing into the Houston-Galveston district, as liquid flows into a funnel, a future increase of the amount of business which originates in the territory between the Mississippi River and the Rocky Mountains. Houston is also benefited by the great southwestern development in Texas and in Mexico. With the foundation which has been laid, and with the determination of effort which characterizes these people, it would seem altogether probable that the dreams of even the wild-eyed enthusiasts would be realized here within the next 10 or 20 years.

Within recent years there have been more than a half dozen steel and concrete construction office buildings erected in Houston, of a character that would be a credit to the largest cities. There has also

been erected a municipally-owned auditorium, steel and concrete, seating 7000 people, and one of the notable buildings of the kind in the country. The United States Government has also built a very beautiful Federal building, and the county has erected an imposing new courthouse. A new terminal railway station has been constructed, and there have been numbers of residences and various other buildings erected, all of good architecture and contributing to the general air of development and substantial growth, which impresses itself on even the casual observer.

Important plans for further development include magnificent hotels, other office buildings and buildings for the great Rice Institute, for which foundations are being laid, two of which buildings are to be completed during the present year. This institute, with an endowment fund of a present value of \$7,000,000, invested in such a way that the principal will certainly reach \$10,000,000 within a few years, will be one of the notable educational institutions of the world. It will be the Cornell of the South, and even more, as the extent and scope of the work will include even a wider range than that of Cornell. There will be continued municipal development, including the construction of an expensive and extensive viaduct across Buffalo Bayou, at the foot of Main street.

That Houston is destined to see a considerable industrial development there is every reason to believe. Already there is a wide variety of industrial activity here, including such great plants as the Dickson Car Wheel Works, one of the largest plants of the kind in the country, and built up from small beginnings, right here in Houston. There are various kinds of factories here, including one of the very few piano and organ factories in the South. In some quarters skepticism is expressed as to a possible important industrial development here or in this district, on the ground of an insufficiency of cheap labor. An interesting and convincing refutation of this erroneous view is offered in the case of the Oriental Textile Mills, which import camel's-hair cloth from Russia, and are devoted exclusively to the manufacture of press cloth, which is sold to cotton mills south and the linseed-oil mills in New England. As the help was not there, the management was inexperienced, and the raw material had to be imported from Russia, it would seem that conditions were as untoward as could confront almost any newly-attempted industry. The enterprise has been established 10 years. For the first five years it was run at a loss. For the last five years it has been paying dividends on the \$300,000 capital invested. One hundred and fifty hands are employed, all of whom had to be educated by the manager. They are mostly country people who failed or who tired of farm life, and who moved to town to take whatever labor they could find. A large number of the hands employed by the Oriental mills have been with the factory for a number of years. They are a good class of people, several of them owning their own homes. The millowners have built and maintained a church, and they also own 18 well-appointed houses. The success of this factory undoubtedly demonstrates the fact that the industrial development of this section can be as easily accomplished as has been the case in other places. In New England it was a matter of very strenuous effort, close figuring and the education of skilled labor. New England has always had and always will have the handicap of a rigorous climate, together with the neces-

sity of importing not only every kind of raw material, but fuel as well.

There is no reason why the Houston-Galveston district need not experience a very large development along almost every industrial line. Broad co-operation on the part of local capitalists, selection of managers of ability and the education and training of laborers will make possible a very wide expansion of industries in Houston in a surprisingly short term of years. There are numerous instances where a broad local appreciation of the situation is already in evidence. For example, there has been organized with local capital a \$200,000 company for the manufacture of metallic hose, for all kinds of car couplings and other uses, in accordance with a patented design, which has been tried out and found to be thoroughly practical.

Not only will the industrial development begin within Houston proper, but many points along the ship channel will be the sites of industries. Already a location has been made at the newly-created town of San Jacinto of an iron and steel mill, which will roll balls, rods and shapes.

In the city of Galveston expectations of a very considerable and immediate development are pinned to the completion of the causeway. There has been some delay in the gigantic work of building the 10,000-foot reinforced concrete roadway between Galveston and the mainland, and well-informed observers put the date of completion now about September 1. When this magnificent structure, with its roadway for vehicles, electric cars, steam railroads and foot passengers, has finally joined the island to the mainland, there is no question that an entirely new era will begin for Galveston. Coincident with the completion of the causeway, an interurban electric line will begin operation between Houston and Galveston. Long before that time a boulevard will have been completed, connecting Galveston not only with Houston, but with numerous settlements and coast resorts along Galveston Bay on the ship channel. Towns are developing all over the territory to be affected, and unquestionably an entirely new order of things will prevail in Galveston and the whole section with the opening up of the causeway.

The handsome new beach hotel—the Galvez—will be completed this summer; the beach boulevard, 35 miles, has been completed; Fort Crockett is rapidly being transformed into a beautiful show place, and Galveston, with its unsurpassed beach of velvety sand, will unquestionably become more and more the playground and favored resort of people from all over the Southwest and elsewhere as soon as the facilities for easy and quick communication have been perfected.

Already the second port in the country in volume of business, and while further growth of its ocean trade is expected, there is a spirit of determination among the people of the place to build up the commerce of the city to a greater extent than it has ever before known. Foreseeing the time when Galveston's magnificent wharfage facilities will be inadequate to take care of the commerce of the port, railroads and private capitalists are laying plans for providing shipping facilities at contiguous points, the development being conspicuously carried on at Texas City and Port Bolivar.

Port Bolivar is the Gulf terminus of the Gulf & Interstate Railroad, a subsidiary company of the Santa Fe. Its present port importance is given it by the fact that it has a very large lumber export trade, and efforts are being made toward a concentration of the lumber export business of the Southwest at Port Bolivar. Plans are well in hand also to bring about an indus-

trial development at Port Bolivar. The initial work in this line is in the direction of creating an iron-ore business, and it has been spoken of as among the possibilities that a smelter may be established here for treating Texas ores. Col. L. P. Featherstone, president of the Gulf & Interstate Railroad, is general manager of the Port Bolivar Iron Ore Railroad, which is now under construction from Longview to the ore fields in Upshur and Cass counties, Texas. C. N. Sharp, president, is crowding the work of construction, which is to be completed July 1. The present contract calls for the construction of 30 miles of road, which will open up a large iron-ore bed, from which it is proposed to mine 1000 tons of ore daily. Later on the road will be extended to the main ore beds in Cass and Morris counties. Engineers R. M. Dickman and Charles Catlett have estimated a total of 150,000,000 tons of ore in the 30,000-acre holdings of Messrs. L. P. Featherstone, Fox Winnie of Galveston and L. C. Luckel of Houston. With an output of 1000 tons of iron ore daily, which it is proposed for the present to ship north from Port Bolivar, there will not only be required pier facilities at Port Bolivar, but a general overhauling of connecting lines will have to be made.

The Texas & Gulf Railroad, which runs from Longview to Center, forming a part of the Santa Fe system, will have to be practically rebuilt, and when it has been demonstrated that there is a continuous shipment of 1000 tons of ore daily over the line it will be necessary to spend \$1,400,000 in betterment, equipment and modernizing the railroad. Grades will be reduced, 90-pound rails laid, Mallet engines and 50-ton cars purchased in order to economically handle the business. At that time it will be necessary for the railroad to put in modern ore pier at Port Bolivar. Such a pier would cost at least \$750,000.

At Texas City there has already occurred one of the most remarkable developments the country has ever seen. The five steel-concrete construction warehouses and the reinforced concrete grain elevator of the Texas City Transportation Co. loom up on the sky line like the accessories of an already great commercial center. Ships come and go between Texas City and all the ports of the world.

To indicate the growth of commerce at the port, the increase in cotton receipts may be given as a striking example. Last season Texas City handled 10,919 bales. This year, up to the present time, it has received 260,000 bales, and the expectation is that the total at the end of the season will foot up more than 300,000 bales.

In addition to the development which has already been made, Capt. A. B. Wolvin and associates have arranged to spend approximately another million dollars in the construction of an additional pier, which will be designed especially for the rapid and economical handling of cotton.

The yards and switching facilities of Texas City are also being greatly increased, 10 additional miles of track being arranged for at once. Plans call for 40 miles of working and storage yards. An order has been given to the American Locomotive Works for a 50-ton switching engine; also to the Westinghouse people for a high-speed gasoline engine for passenger service between Texas City Junction and other points in the city.

A new concrete construction depot, 24x100 feet, Mission style, stucco finish, is being erected, and work will begin at once on a concrete hotel, to be located facing the bay, from which a pleasure pier 1000 feet long will be built into the bay, with an amusement pavilion at the sea end of the pier.

A complete sewerage system is being installed in Texas City. Electric lights have

always been provided, and with the shell roads, concrete sidewalks and the high-class business buildings which outsiders are now beginning to construct, Texas City is taking on the air of a thrifty and harmoniously developing city. There are something like 3500 people here now, and a start has been made which will unquestionably carry the city to a place of much larger proportions within the next few years.

Texas City will be as greatly benefited by the causeway as any other port in this section. The causeway will put Galveston and Texas City into close touch, whereas it is at present something of an undertaking to cover the short distance between the two places, the seven-mile ride by water consuming an hour and the connections by rail being not overly frequent nor convenient. There will undoubtedly be a branch of the interurban railroad built to Texas City from the main line, and there will be boulevards by which automobilists can make the trip between Galveston and Texas City within 20 or 30 minutes at the outside.

Texas City is attracting the attention of investors and people looking for locations for factories in a way that promises a very considerable development here in the immediate future. In addition to the \$500,000 oil refinery at this place, there has been located a cottonseed delinting and crushing plant, representing an investment of about \$100,000. There are a number of smaller industries already located here. A sugar refinery company with a capital of \$1,600,000 has been negotiating for some time, and under the terms of the contract the company is to be financed and be ready to begin work by the 1st of April. Negotiations by a number of other industrial institutions are under way, but have not yet reached a point where publicity may be given. Enough, however, has already been accomplished to demonstrate that Texas City will inevitably experience a development which will start her well on toward the 25,000 class within the next decade or so.

ALBERT PHENIS.

LUMBER AT PORT BOLIVAR.

Plans to Increase Largely Shipments at That Place.

The Gulf, Colorado & Santa Fe Railway will undertake extensive improvements to increase the lumber shipping facilities of Port Bolivar, Tex. F. G. Pettibone of Galveston, the company's vice-president, telegraphs the MANUFACTURERS RECORD that full details have not been determined, but that the general plan has been outlined by the Galveston *News*, which said, in part, as follows:

"As one of the preliminary steps to the inauguration of Port Bolivar improvements by the Santa Fe that is to eventually involve the expenditure of over a million dollars, a party of Gulf, Colorado & Santa Fe officials and a number of prominent lumber dealers spent the greater part of a day in a careful inspection of the terminal facilities of the subport. The railroad men, headed by Vice-President and General Manager F. G. Pettibone of the Gulf, Colorado & Santa Fe, gave the representatives of the lumber interests every opportunity to express their opinion of the needs of the port, and announced it as their program to institute the construction of improved facilities for the lumber shippers that will make Port Bolivar one of the greatest, if not the greatest, of the lumber ports of the entire Southwest.

The improvements to be made include the construction of skidways and unloading platforms over 1200 feet in length and 30 feet wide, so built as to permit the additional widening of the structure to

60 feet. The trackage arrangements on the lumber slip will be rearranged, new sheds built if necessary, and the additional dredging out of a new slip to the approximate depth of nine feet will be done to permit the unloading of several million feet of lumber, to be confined by what is technically known as a 'skid boom.' The material that is to be dredged from the bottom is to be pumped behind creosoted bulkheads, and the general scheme of improvement, the first steps toward which are to be taken shortly, will give the subport first-class facilities for the handling of a class of traffic that is growing rapidly in volume and that has its origin in the great lumber tracts of East Texas and Louisiana."

"Under the plan of arrangement that has been outlined and that the Santa Fe intends to put through," said E. R. Dumont of New Orleans, manager of the Standard Export Lumber Co. of that city and one of the prominent lumber men of the South, "Port Bolivar can handle 50,000,000 feet of lumber through this port annually with the greatest ease."

Settling in Louisiana.

In an address before the Credit Men's Association at New Orleans last week Mr. O. W. Crawford said that the three great developments now under way in Louisiana were land reclamation, corn production and subdivision of plantation. He predicted that in less than five years Louisiana will be raising better corn than any other State in the Union, more corn to the acre and be getting more money per bushel for it. Referring to the subdivision of large plantations, he said:

"Large landed estates do not produce good citizens no more in Louisiana than in Russia or in Latin countries. The spirit of liberty grows in the heart of the man who owns his home. The plantation system in Louisiana does not make good citizens of the population which tills them, nor does it get the most out of the land. I have not time here to discuss this development as I would like, but it is started—it is already epidemic. It means more for the civic pride of the people of the State than a dozen expositions. After the greatest difficulty and months of argument I induced Mr. George H. Payne of Omaha to undertake the sale of plantation lands to Northern farmers. His success has been great; has been inspiring. He has brought 434 farmers here and sold them small farms of subdivided plantations, aggregating nearly \$1,000,000. Other operations have brought 295; a total of 729 in three months. These I know personally have been brought to Southern Louisiana; how many more, I do not know."

Studying Louisiana Lands.

Among the visitors to Louisiana last week reported as studying lands of the State with a view to investment or development were Charles E. Yerkes and W. A. McGuire of Chicago, J. A. Penick of Chariton, Iowa, and J. H. Harberts of Quincy, Ill., the last two interested in alluvial lands in the neighborhood of Baton Rouge, and a party of bankers of Illinois and North Dakota who studied the drainage operations around Erath and Abbeville. Mr. Yerkes in an interview at New Orleans was quoted by the *Picayune* as follows:

"We are coming here because we believe that Louisiana offers the best field for sure investment to be found in the Union. We think Louisiana lands will do to buy and hold. They are bound to increase in value, for the State has a future second to none. This is not my first trip here. I came here several weeks ago and spent five days. I went around quietly

more as a spectator than anything else. No one knew I was a prospective investor, but I wanted to see for myself how land men treated buyers. I satisfied myself that the land offered was better than any land in the country, and determined to come down to get some of it. We do not know what we will do yet. That remains for the next few days to determine. We may buy a smaller tract than we intend, but we are here to do business because we believe we have a good thing. We want to bring down Northern capitalists to help us develop what we hope to get."

Chattanooga Estates Co.

It is announced that the Chattanooga Estates Co. of Chattanooga, Tenn., has taken formal possession of the properties of the Chattanooga Company, Limited, and will proceed with the general developments outlined several weeks ago by the

MANUFACTURERS RECORD. These properties include 8000 acres of land with a frontage of 12 miles on the Tennessee River, the suburban additions known as Normal Park and Riverview, the land known as Maps 1 and 2, Chattanooga Island, and land in Moccasin bend. In order to fix the State tax on the transfer of the property the value was estimated at \$350,000. The lands purchased will be thoroughly developed for residential and industrial purposes, and it is stated that a landscape engineer will be engaged at once to outline and plan details of the improvements. The Chattanooga Estates Co. has a capital stock of \$6,000,000, and its president will be C. E. James of Chattanooga. The directors will be Mr. James and the following New York capitalists: N. F. Brady, Harry Bronner and C. I. Stralem of Hallgarten & Co., James Imbrie of Morris Imbrie & Co., Lyttleton Fox, H. A. Kahler of O'Conner & Kahler, and Charles B. Eddy. Mr. Eddy is also president of the Durham Coal & Iron Co., whose plans for coal and iron developments in the Chattanooga district were recently detailed by the MANUFACTURERS RECORD, and it is understood the Chattanooga Estates Co. will operate largely in connection with the Durham proposition. The capitalists mentioned are largely interested in both corporations.

The Texas Company.

The Texas Company of Houston has telegraphed the MANUFACTURERS RECORD there is no foundation for recent reports that the company will undertake pipe-line construction from Tulsa and Louisiana and the erection of refineries at Beaumont and Corsicana in connection with its recently announced bond issue. A dispatch from Houston refers to the bonds in part as follows:

"The Texas Company will shortly offer to its stockholders \$12,000,000 of 20-year convertible 6 per cent. bonds according to official announcement made here. The bonds will be sold at par. The amount of the sale will be used to pay off the floating debts of the company and for additional working capital. The original capital stock of the Texas Company, which was organized in 1902, was \$3,000,000, but that has been increased from time to time until now it is \$36,000,000, of which \$27,000,000 is outstanding. Last May the stock was increased from \$18,000,000 to \$36,000,000, and \$9,000,000 was distributed as a bonus to shareholders, representing a stock dividend of 50 per cent. The company has been paying regular dividends at the rate of 12 per cent. a year, besides occasional extra dividends.

"Last year the company sold \$3,000,000 first mortgage 6 per cent. serial gold notes, and in the previous year it disposed of \$6,000,000 6 per cent. 10-year debenture bonds, convertible into stock at

the option of the holder at \$150 per share. These bonds were subject to redemption on and after January 1, 1912, at 110 and interest, but the greater part of them have already been converted into stock. For the fiscal year ended June 30 last the company's gross earnings were \$9,848,770, and its net earnings after interest and taxes were \$3,911,703. There was appropriated \$1,248,921 for insurance reserves, sinking fund and depreciation, and after the payment of \$1,562,872 in dividends, representing 12 per cent. on the then outstanding stock, a final surplus of \$1,100,000 remained. The company owns about 1000 miles of pipe lines reaching Texas, Oklahoma and Louisiana oil fields; four refineries at Tulsa, Okla.; Port Arthur, Dallas and Port Neches, Tex., and one at Bayonne, N. J.; tank steamers and barges."

For a Cotton Mill.

[Special Cor. Manufacturers Record.]

Newells, N. C., February 17.

This town, located only five miles north of Charlotte on the main line of the Southern Railway, offers special attraction for the location of a cotton mill or allied industry, as it is in the heart of a cotton-growing section, about 2000 bales of cotton being ginned in the immediate vicinity.

Mr. W. B. Newell of Newell & Wallace, and a large owner of real estate, says he would be glad to welcome a manufacturing industry of any kind. He says that in addition to cotton, corn is grown, but little wheat, although the soil was adapted for it. The town is a healthy one, and has the best freestone water.

A cotton cultivator, now generally used throughout the South, is made here by Mr. C. W. Rich, who for the last 30 years has been supplying the cotton planter with an adjustable tooth cultivator which he claims was the first of its kind ever made, but never having been patented, is now made by other farm implement factories. Besides the cotton cultivator, Mr. Rich also makes plows, harrows, wagons and other machinery used by the farmer.

As the same freight rates apply here as for Charlotte, the advantages of locating at this point are to be easily seen.

J. LOUIS SPENCER.

A Mississippi Packing Plant.

[Special Cor. Manufacturers Record.]

Natchez, Miss., February 18.

Judge Thomas Rever of this city is reported to be organizing a steamship company to run a line of steamers from Natchez to Panama. The movement is backed by prominent wholesale merchants of Natchez, and by the interests owning the packing plant recently built at Natchez. This packing plant, after only a little over a month's operation, has just doubled its capital, owing to the large volume of business which has come to it immediately, and which has been greatly in excess of expectations. Judge Rever is seeking to get in touch with steamship owners who might charter a vessel or two for the trade, as his company at the start will not own its own ships.

Natchez's shipping facilities were well advertised by the record trip of the United States battleship Mississippi up the river to Natchez a year ago. This trip will be followed up by the United States steamship Idaho, which has been ordered to Natchez by the Navy Department in May of this year.

J. H. R. Parsons, general passenger agent at New Orleans of the Southern-Pacific-Sunset Route, is circulating an attractively illustrated pamphlet describing the commercial and industrial advantages of Morgan City and Burwick, La.

Up-to-Date Cement Plant in Southern Appalachians

[Special Correspondence Manufacturers Record.]

Kingsport, Tenn., February 17.

In this picturesque mountain region of Eastern Tennessee there is rapidly nearing completion one of the South's largest industries, the 3000-barrel plant of the Clinchfield Portland Cement Corporation at Kingsport. This Appalachian section of the State has within the last few years been opened up by a new railroad, the Carolina, Clinchfield & Ohio Railway, which, with its allied connections, runs from the coal fields of Virginia through four States to tidewater. The cement plant is one of the most important industries on the line, and was built as a result

ing air for the rock drills, and three No. 6 Gates gyratory crushers, motor-driven, together with necessary rock drills, hoists, etc.

The stone is blasted from the side of a hill, loaded into steel side-dump cars and run by gravity to the foot of an incline leading up to the crushers. It is drawn up by an electric hoist to the three crushers, and after being crushed discharges directly into the boot of an elevator, which spouts into a storage bin and thence into standard 50-ton steel hopper bottom railroad cars, 15 such cars being required to handle a day's supply of stone. On reach-

ing the plant the discharge from any one of them and delivers it to the plant. The plant proper consists of the following buildings:

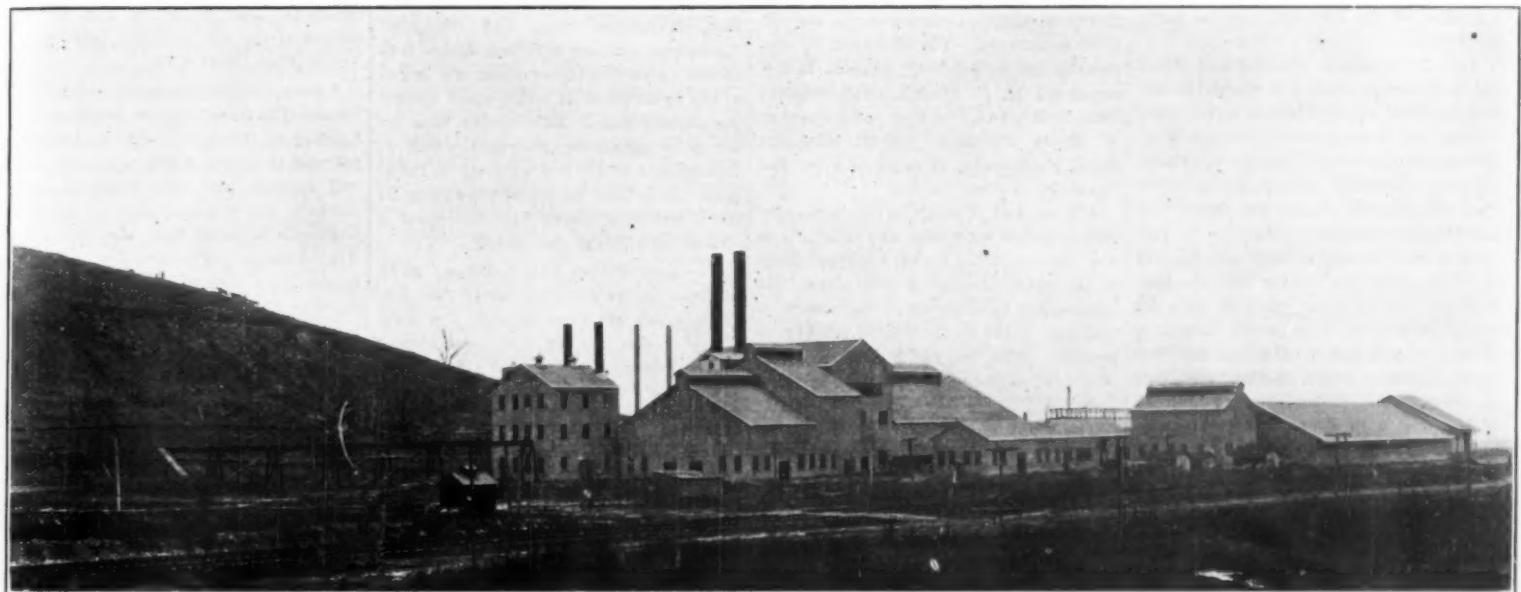
Raw material grinding building, kiln building, clinker storage system, clinker drying building, clinker grinding building, cement stockhouse and packing-room, fuel building, power-house, carpenter, blacksmith, machine shops and storeroom. Briefly, the sequence of operations is as follows:

The stone and shale are drawn from their respective storage places by belt conveyors, elevated into steel bins and drawn from these bins into the hoppers of Richardson automatic scales. These are set by the chemist at the weight required for each material, and are operated automatic-

driers are each operated by motors. The driers discharge into a continuous pan conveyor running in a tunnel from the drier-room to the raw-grinding room. The mixed and dried materials are now prepared for burning in the kilns. This preparation is accomplished in two stages, first grinding and then pulverizing.

The mixed materials are elevated into steel bins over five type S-6 Pennsylvania hammer mills. These bins hold a 15-hour supply, so that the mixing and drying building will be run in daytime only, or long enough to fill these bins which will supply the mills during the night. These mills are constructed exactly similar to the two Pennsylvania mills mentioned above, but are equipped with finer screens, so that when the material leaves the latter

TWO VIEWS OF PLANT OF THE CLINCHFIELD PORTLAND CEMENT CORPORATION.



of the finding of large deposits of materials ideal in composition and condition for the making of a uniform high-grade Portland cement, and having in mind the especially favorable situation of a plant at a point convenient to excellent fuel and with unequaled facilities for prompt shipment, this latter feature being one particularly interesting to every user of cement.

Kingsport, where the plant is located, is one of the oldest towns in the State, and since the building of the cement corporation's plant and a vitrified brick plant nearby it is growing rapidly. Other industries have arranged to establish here, and the town is preparing for its growth by laying out macadamized streets, building of a lighting plant and the installation of a water and drainage system. A number of houses for employees of the different industries have been built. The cement plant alone will give employment to 200 at its mill and quarries. The corporation's property, including mill and quarries, covers 400 acres. The mill site alone extends for half a mile parallel with the railroad's right of way, and lies between the railroad and the Holston River, from which stream it draws its water supply.

The corporation's limestone quarries are a short distance down the railroad from the plant, the stone is exceptionally pure, averaging 97 per cent. carbonate of lime and less than 2 per cent. carbonate of magnesia, and the quality and large extent of the stone makes it a most valuable asset in manufacturing high-grade cement, with a comparatively low quarrying cost. The quarrying equipment comprises two 125-horse-power horizontal high-speed engines, direct connected to a two-phase 220-volt 200-kilowatt generator and Ingersoll-Rand belt-driven compound compressor, furnish-



ing the plant the stone is dumped from a steel trestle to the stone storage below, which has capacity for a week's supply of stone. From storage it is drawn as required onto a belt conveyor running in a tunnel, and thus into the mill.

The shale deposit is less than 100 feet from the mill. It occurs as a hill 200 feet high and about half a mile in length. The entire hill has been sampled, and the analyses of the samples show a variation of not more than three-tenths of 1 per cent. in any single constituent at the various points. The shale is loaded in small cars, which run by gravity directly over a pair of Jeffrey spiked rolls, and is discharged by these onto a belt conveyor, which distributes it into any one of the three bins in the shale storage building. Each one of these bins holds sufficient shale for an entire day's run. A single

ally by electrical means when each hopper has been filled to the weight required.

The proper proportion of materials is a prime requisite in the manufacture of a uniform product, and the installation of these scales is in line with the plan pursued in building the mill throughout to use the machine best adapted for the kind of work to be done, regardless of expense. From the scales the two materials drop through a chute into two Pennsylvania type S-5 hammer mills, each driven independently by a 75-horse-power motor.

The material is next elevated and fed into two cylindrical revolving driers, each of them 60 feet long and 6 feet in diameter. The driers are equipped with angle irons, which throw the material into the current of hot gases passing through from the firebox in front and thus serving to mix the two materials as well as dry them. The

product from the Pennsylvania mills is elevated and conveyed to bins, from which it is drawn by a roll-feeding device into nine Allis-Chalmers tube mills. Each of these tube mills is 22 feet long by 5½ feet in diameter, and is belted to a 90-horse-power motor. In it the material receives the final pulverizing and burning: it has been ground to an impalpable powder, and is now elevated to the bins over the rotary kilns. There are five of these kilns, each 125 feet long and 8 feet in diameter. They are lined with a highly refractory fire-brick manufactured especially for the Clinchfield Corporation, nine-inch brick in the clinker zone and six-inch brick for the remainder of their length. A 100-foot high fire-brick-lined stack caps the rear housing of each kiln. The kilns are turned by gears operated by a variable-speed induction motor, whose speed is varied by a controller placed convenient to the operator. The kilns are furnished with a movable front housing of fire-brick, which can be rolled away when it is necessary to enter the kiln for relining and repairing.

Pulverized coal for the kilns is prepared in the fuel mill adjacent. The coal, after drying in a Ruggles-Coles A-9 30-foot drier, is ground in Raymond pulverizers. The output of these is put through separators, and while the coarse coal is returned to the mills to be reground, the fine coal is conveyed to the kilnroom for burning. In front of each kiln is a powdered coal-storage bin holding a 12-hour supply. The coal is drawn from these bins by duplex screw conveyors, which, in

turn, delivers it to a set of duplicate low-pressure burners. The powdered fuel thus ejected into the mill is readily ignited, producing the intense heat necessary to calcine and combine the raw materials to Portland cement clinker.

The raw material is drawn from the bins over the kilns and fed into the kilns by means of a screw conveyor, whose speed can be varied by the kiln operator as required. After passing through the length of the kiln, the now white-hot clinker drops into a covered concrete pit.

The clinker pit is divided into two communicating compartments, one of which contains the hot clinker as it issues from the kilns, the other provided room for elevating machinery. The function of the compartment holding the clinker as it issues from the kiln is to provide sufficient storage space, so that in the event of the elevating machinery requiring repairs the operation of the kiln will not be interfered with.

The clinker is now elevated and stored out in the open, where it is allowed to cool and weather. A novel feature of the plant consists in storing an unusually large amount of clinker out in the open. Under ordinary conditions this clinker is drawn from this outside storage and taken into the clinker grinding building to be pulverized into Portland cement. During wet weather, when the clinker has absorbed sufficient moisture to interfere with its ready pulverizing, it is passed through a 60-foot drier, 6 feet in diameter, and thus rid of all surplus water. Before the clinker is taken to the clinker grinding building it is mixed with a proper percentage of gypsum or calcined plaster to regulate its set. The clinker is elevated, passed through a pair of corrugated rolls, which reduce it to a size sufficient to be fed to the Giant Griffin mills. There are 12 of these mills, and they are the largest size manufactured. Each one is belted to a 75-horse-power motor. In these mills the clinker receives its final pulverizing and discharges as the finished product, Portland cement, having a fineness of 85 per cent. through the 200-mesh sieve, and is conveyed to the cement stockhouse.

The stockhouse is a reinforced concrete structure 200 feet in length by 80 feet wide, with walls 12 feet high, and has a total capacity of 50,000 barrels. It is divided up into 24 bins, 12 on either side of a passageway in which runs a 16-foot screw conveyor the length of the building. Cross-conveyors in the bins feed into this central conveyor, and the cement is carried to the packing-room, located at the end of the stockhouse. Here it is elevated into bins over Bates automatic packing machines, packed into bags and loaded into railroad cars on either side of the packing-room.

The power plant consists of two batteries of Babcock & Wilcox water-tube boilers. Although two batteries are installed at present, provision has been made for additional boilers. The current is furnished by two 1000-kilowatt Allis-Chalmers turbines, three-phase, 60-cycle, 440-volt. Provision has also been made here for an increase of the equipment, and it is the intention of the owners to install an additional turbine having a capacity of 1500 kilowatts. The equipment employed in the power-house is of the most modern type. Tomlinson condensers will be used, and all pumps will be electrically driven. The water necessary for condensing and other purposes will be taken from the river through conduit 36 inches in diameter. The discharge from the condensers will be returned to the river through a conduit of similar size.

The plant was designed by Mr. S. Henry Harrison, and was erected under his personal supervision. The officers of the corporation are as follows: John A. Miller, president; H. R. Dennis, vice-president; Wm. N. Bennett, secretary and treasurer; S. Henry Harrison, general manager; David H. Houston, manager of sales, and Frank E. Walker, chemist.

A great deal of credit is due to the promoters of this enterprise, and especially to Mr. John A. Miller for his untiring energy in the establishment of this plant. No expense has been spared by the owners to make the plant as thoroughly efficient as possible. With this end in view, only machinery of the latest and best type has been installed.

The plant is entirely fireproof, as no wood has been used in its construction. All the buildings are of steel, covered with corrugated ingot iron, with the exception of the stockhouse, which is of reinforced concrete.

RECLAIMED 2300 ACRES.

Interesting Drainage Undertaking Near Little Rock.

[Special Cor. Manufacturers Record.]

Little Rock, Ark., February 17.

On February 7, after nearly two years of hard and untiring work on the part of the engineers and contractors, the dam holding back the waters of what is known as Drainage District No. 1, Pulaski county, Arkansas, was broken and the reclamation of 2300 acres of land was begun.

The territory embraced in the district is 2300 acres of continuously wet land adjoining the city of Argenta, which lies on the north side of the Arkansas River, opposite Little Rock. The wet lands were due to the natural drainage from the hills on its north and west borders discharging

into a depression caused by the high bank of the river. The drainage from this swamp goes by Ink Bayou into Plum Bayou, and finally empties into the Arkansas River just below Pine Bluff, after having flowed parallel to the river for 40 miles.

The tract to be reclaimed is three miles long and one and one-half miles wide, and the water stands on the swamp at an average depth of three feet. The drainage of the land was done by open ditches, which ramify over the whole territory, and which drain into a main concrete conduit equipped with a floodgate, which carries the water to the river. The floodgate is placed within the conduit, and acts as a safeguard against the land being flooded by a rise in the river after the district is under cultivation.

The concrete conduit is horseshoe-shaped, seven feet two inches high and six feet six inches wide, and reinforced throughout with one-half-inch square bars spaced every five inches along the length of the conduit and 24 inches apart around the circumference. This conduit rests for its entire length on quicksand, which at most places is six feet or more in thickness. It is built on round piles from 24 to 36 feet long, spaced four feet apart, a row on each side of the conduit.

The open ditches have a bottom width of from two to five feet, except the main ditch, which has a bottom eight feet wide. These ditches are cut with sides sloping one and one-half to one, and at all places the velocity of flow is kept below that which would cause erosion of the banks. There are in all six miles of open ditches.

The land reclaimed by this system is of great value, due not only to its location near Argenta, but especially to the railroad lines that pass through it. The main line of the St. Louis & Iron Mountain and the Chicago, Rock Island & Pacific and the Pine Bluff branch of the St. Louis & Southwestern all pass through and are taxpayers of the district.

The total cost of the work was \$110,000, which money was raised by the issue of bonds running 20 years and bearing 6 per cent. interest.

The work has been done under the administration of Hon. Joseph Asher, county judge; Messrs. Lund and Hill, engineers, of Little Rock, and S. R. H. Robinson & Son Contracting Co. of St. Louis, Mo.

The work of draining these swamps was begun April 1, 1909, and, according to those in a position to know, has made fertile a tract of land that heretofore was of little value. Many acres of this tract are now valued at \$1000 or more per acre.

MILES C. SHOREY.

Wants Woodworking Plants.

Commercial Club,

Orange, Tex., February 17.

Editor Manufacturers Record:

This city and surrounding country are receiving more attention just now than at any time in the history of Southeast Texas. The value of Orange county lands is just beginning to be appreciated, and this has been brought about by demonstrations in the growing of vegetables, cane, corn and citrus fruits. The other things that are bringing Orange to the attention of the world are the wonderful oil fields which have recently been developed just seven miles east of this city, in Louisiana (Orange and Calcasieu parish are united in building a public highway from this city directly to this field at an expense estimated at \$10,000), the immediate prospects of deep water (25 feet) from Orange out to the Gulf of Mexico, and the completion of the million-dollar plant of the Yellow Pine Paper Mill.

Among the improvements going on at Orange just now may be mentioned the building of the public highway eastward, referred to above, which when completed will increase our trade territory nearly one-half, and will form part of the trans-Louisiana highway from New Orleans to San Antonio. The building of three-fourths of a block of high-class reinforced concrete and brick buildings, all of which are to be occupied by stores in the first floors and offices in the upper floors, and the repairs and refurnishing of the principal hotel, The Holland, which repairs will cost when completed as much as \$12,000 to \$15,000 and will make it one of the finest hotels in the Southwest.

Orange has in prospect the building of a first-class opera-house and one or two other railroads.

We want to get in touch with woodworking industries who can make use of the short lengths of lumber from our various sawmills. This material can be gotten at a very low price. We want factories to utilize our inexhaustible supply of tupelo gum. On account of the cheap fuel, the refuse from our great sawmills, which we are utilizing, Orange is prepared to supply very cheap electric power for all manufacturing requirements. We have here the best water supply for domestic uses, and have one of the most healthful locations on the Gulf coast. It should interest any manufacturer of wood to investigate Orange. It will cost little to make the investigation, and we believe we can interest you. The Orange Commercial Club is ready to answer inquiries.

S. R. SHEPHERD,

Secretary.



A SUBSTANTIAL RAILROAD BRIDGE.

The accompanying illustration shows the new bridge of the Central of Georgia Railway over the Chattahoochee River at Columbus, Ga. It is about 740 feet long, and is built of steel on stone and concrete piers and abutments. There are eight 80-foot deck girder spans and two 50-foot. There are five new concrete piers, but four old piers and two abutments were rebuilt. The contract was let in February of last year, and was completed in December, with steel furnished from the American Bridge Co. The Foster-Creighton-Gould Company of Nashville, Tenn., was the contractor.

Experiment Station's Work for Southern Farming.

[Written for the Manufacturers Record.]

Business men, perhaps, don't appreciate to the extent they should the effect of the work being done by the various State agricultural experiment stations upon the business affairs of the country. One direct result of this work, notwithstanding the fact that it has sometimes languished because of lack of funds to carry it on, is the wonderful increase in our crops that we note every year through scientific methods that these experiment stations are teaching, and in addition to this our farmers are being shown better business methods in handling their products and are gaining a broader understanding of the possibilities of the work in which they are engaged.

Experiment station work in the various Southern States has been the subject of frequent comment in the MANUFACTURERS RECORD. It has been most influential in speeding the campaign for diversified agriculture, giving the South greater independence as to the price for its cotton and encouraging the raising of foodstuffs, instead of buying from other sections.

The Maryland Agricultural Experiment Station at College Park, which has the distinction of being one of the oldest in the United States, illustrates the interesting and valuable part that such institutions are playing in Southern development. There is conducted here not only the experiment station founded in 1888, and supported by the State, but the Maryland Agricultural and Mechanical College for young men and boys, founded in 1856. The work of each institution, while entirely separate and distinct, dovetails with the other in such a way as to give each facilities for the highest scientific experimenting and training. The places taken in public life, business affairs and our agriculture by the graduates of this school have been the subject of frequent comment, which need not be repeated here. But at a time when business men the land over are complaining of the irresponsibility and lack of self-respect manifested by their younger employes, it may be well to call attention to the training given young men at this institution, where promptness, obedience and useful knowledge are imparted to as fine and likely looking a lot of youths as ever assembled in any school.

The boys undergo a military training that will compare favorably with that of any school in the country. They are taught mechanics, chemistry and agriculture in such a tactful and effective way that they manifest the greatest zest in their work. They were watched at their drills, in their classrooms and workshops and at the mess table. Boys graduating under such tutelage cannot fail to make their mark in this land of opportunities. It is no wonder that the visitor who accompanied the writer on a recent trip to the school remarked, although he had already made other plans, that this was the school he wanted for his son.

At the experiment station, of course, the principal object is to show farmers the commercial possibilities of crops raised in the right way, as well as what can be accomplished by using intelligence in raising live-stock, dairying, etc. Nothing is done that would be beyond the means of the average farmer. The land where the experiment farm is located was as unlikely a piece of ground as it would be possible to find, but the work was started, and everything that has been added since has been done with the idea of the ordinary farmer being able to do the same thing. They don't try to do fancy things. They

try to show the possibilities of the average American farmer, and they have succeeded. The land that they took hold of has been made beautiful and productive because they have used intelligence and persistence. Their hogs, their cattle, their horses and their poultry are only better than those of many farmers because they have used methods that they have found by experiment are successful, and they are always striving for greater perfection.

It is very fortunate for Maryland that it has in charge of this work the broad-minded experts who are so helpful and inspiring to every farmer in the State who is seeking information. They are never too busy to stop whatever they are doing to give all the time that a visitor requires, and to go into every detail of their work over and over again.

At this season of the year special courses are conducted in poultry raising, fruit growing and general agriculture. It is the privilege of any resident of the State to receive free tuition in the class that he or she may prefer, and this year's attendance upon these classes was record-breaking. In the fruit-culture course the class was four times as large as ever before, and out of 60 members, six of them were women. The interest shown the country over in fruit growing was reflected in the attendance upon this fruit-culture course. The members of the class came from every county in the State—some were professional men, others farmers desiring to improve their knowledge of fruit growing, while a good half of the entire attendance was made up from the ranks of business men who have in mind giving their attention to outdoor affairs. The work of the fruit grower was taken up most completely in the limited available time.

BIRMINGHAM MORE BUOYANT.

Complete Change of Sentiment in Regard to Pig-Iron.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., February 20.

There has been a complete change of sentiment in regard to pig-iron during the past week. It develops that thus far this month a tonnage of approximately 200,000 tons has been placed on the order-books of Alabama furnaces, with the result that two interests are entirely out of the market, while a third has advanced to a firm \$11.50 basis. A few weeks ago some iron was offered in certain directions at a figure below \$11. Today the particular interests to which this iron was offered are finding it difficult to cover their nearby needs at \$11. There is a decidedly more buoyant feeling dominant in the trade here with the opening of a new week. Stocks are reported on the decrease. At the same time there will undoubtedly be found quite a lot of pig-iron on furnace yards March 1. If, however, a buying movement of much moment should develop, such stocks would soon be consumed, as it is an agreed fact that for many months now most producers have been letting the furnaces carry their stocks, finding no difficulty in getting iron as rapidly as wanted. With an improvement in all finished lines, and the consequent greater call for pig-iron, these conditions do not longer exist, and many foundries now are looking ahead with a view to getting in some surplus stock of raw material for the next 90 days. Practically all producing interests are confining quotations to deliveries before July 1.

Some good contracts have been booked the past week. Prices have been very low

on water pipe, however, but with the better feeling in pig-iron and other finished lines the pipe makers are more hopeful of much better figures ruling on their product in the near future. Some of them have sufficient "back logs," so to speak, in the way of municipal contracts, to justify them in sitting steady and holding firm for higher figures. The makers of small pipe are likewise reporting better outlook. Foundries in this district continue to quote water pipe as follows per net ton f. o. b. cars: Four to six-inch, \$21; 8 to 12-inch, \$20; over 12-inch, \$18 to \$19.50, with a differential of \$1 per ton for gas pipe.

Scrap dealers have not participated to any great extent in the better feeling in iron and steel lines here. They are, however, holding firmly to their schedule of prices, and less disposed to shade prices, even on what would have been called especially desirable business a few weeks ago. They are unanimous in predicting better business at an early day. Prices nominally quoted as follows, all per gross ton on board cars Birmingham:

Old iron axles, \$14 to \$14.50.
Old iron rails, \$12 to \$12.50.
Old steel axles, \$14 to \$14.50.
No. 1 railroad wrought, \$12 to \$12.50.
No. 2 railroad wrought, \$9 to \$9.50.
No. 1 country, \$7.50 to \$8.
No. 2 country, \$7 to \$7.50.
No. 1 machinery, \$9.50 to \$10.
No. 1 steel, \$10 to \$10.50.
Tram car wheels, \$9 to \$9.50.
Standard car wheels, \$10 to \$10.50.
Light cast and stove plate, \$8 to \$8.50.

There is a perceptible dullness in coal and coke. Domestic grades of coal are very weak, and it is thought if the warm weather continues the usual summer schedule of prices will be made effective a month earlier. Foundry coke is moving at a fair rate, but furnace coke is lagging.

Asheville Improvements.

Board of Trade,

Asheville, N. C., February 18.

Editor Manufacturers Record:

Evidencing the growth of Asheville, and exhibiting their faith in its continued growth and prosperity, the Asheville Electric Co., a branch of the General Electric Co., last night applied to the Board of Aldermen for permission to lay additional street-car mileage, extend existing turnouts and build new ones, to replace all light rails with heavier ones and to install additional switches during the next 12 months. The improvements contemplate an expenditure during the next 12 months of more than \$100,000, in addition to the two miles of street railway now being constructed across the new concrete bridge over the French Broad River into West Asheville, and which is expected to be complete and regular schedules in operation by April 1. This new line is made necessary to relieve the congestion of traffic on Patton avenue and on Pack Square, where cars from all lines meet every 7½ and 15 minutes. Nearly all of the existing light-weight rail is to be replaced with 70-pound rail. The extension of a number of turnouts, or passing tracks, virtually mean a double-tracking for a considerable distance on several streets.

In addition to improvements to be made to the street-railway system, the electric company will, in order to meet the demands for gas consumption for both light and fuel, lay several thousand feet of new gas mains on streets not now supplied with such mains, amounting in all to nearly two miles.

These improvements are made necessary by the steady growth of the city and the increasing volume of traffic and business.

Work has just begun on the foundations for a handsome new edifice costing \$40,000

for the Episcopal congregation at the corner of Aston and Church streets, and the structure will be pushed rapidly to completion.

N. BUCKNER,

Secretary.

Central Georgia Power Co.

The Central Georgia Power Co. of Macon has completed its water-power-electrical plant on the Ocmulgee River, nine miles from Jackson, Ga. It is now transmitting electricity to Macon, and will soon be supplying numerous manufacturing and lighting plants. Its plant includes a dam and power-house, a reservoir of 3800 acres, transmission lines on steel towers, and substations and distributing systems. The dam is about three-eighths of a mile long and the power-house is 140 feet high, 100 feet wide and 200 feet long, built against the downstream face of the dam. This dam is of solid concrete masonry, and the power superstructure is steel frame work, with brick walls and reinforced concrete walls. The electrical machinery is divided into six main units and two exciter units, each main unit being practically complete within itself, independent of the others, and each capable of developing 4000 horsepower. W. J. Massie is president and J. J. Chaney is manager of the Central Georgia Power Co., whose organization and details for this development were announced many months ago.

To Manufacture Bank Fixtures.

Describing his company's proposed plant, George W. Muller of Atlanta writes the MANUFACTURERS RECORD in part as follows:

"I organized a company at Rome and went as far as getting a charter, but decided to move to Atlanta, and have organized the George W. Muller Bank Fixture Co., with capital stock of \$100,000, surplus \$25,000, all paid up. We have our temporary Atlanta plant at 40 to 42½ Peters street while we are building our new plant, which will be about 487 feet long, covering about three acres at Lakewood avenue and Southern Railway. Building of brick, and one of the most up-to-date equipped bank-fixture plants in the United States.

"We also have 1000 acres of hardwood timber land and our own sawmill cutting our timber and lumber in Rabun county, Georgia. Our sawmill will produce all the selected figured quartered oak and plain oak, both red and white, white pine of the finest quality, poplar, maple, chestnut, birch, hickory, black locust, white holly, magnolia, persimmon and other woods which we use.

"The company now has over \$100,000 worth of bank-fixture contracts on hand.

"We have on hand a \$12,000 contract from the First State Bank of Denison, Tex., for remodeling building and fixtures.

"We have a remodeling job at Ocala, Fla., both building and fixtures. Also contracts for remodeling at St. Augustine, Fla.; remodeling at Tampa, Fla.; bank fixtures at Zolfo, Fla.; bank fixtures and interior work at Aiken, S. C.; interior finish for Transportation Club at Atlanta; bank fixtures for Florida National Bank at Jacksonville, and additional work for Atlantic National Bank at Jacksonville."

Mr. Muller is president and treasurer of the company.

New England Cotton Men.

The program for the April meeting in Boston of the National Association of Cotton Manufacturers includes papers on arbitration on cancellation of orders, by-products in cotton manufacture, doffing machines and their relation to child labor, electric power transmission to cotton mills, executive management of the textile plant

and its relation to the market, gas producers and gas engines for cotton mills, illumination, law of moisture in cotton and wool, methods of cost finding in cotton mills, moisture in cotton, renaissance of the waterfall, rewinding weft yarn, Sandwich Island cotton, textile education from a manufacturing standpoint, and weaving shed roof construction.

Veteran Newspaper Man's Feat.

[Special Cor. Manufacturers Record.]

Houston, Tex., February 9.

Remarkable reception was given by all classes of readers to a series of articles on "Mexico—Past and Present," written by the veteran newspaper correspondent, Col. William G. Sterrett, and printed in the *Dallas News* and *Galveston News* during the past few weeks. Colonel Sterrett, who has just been appointed Fish, Game and Oyster Commissioner of Texas, was a member of a party which some months ago were given opportunities for a very comprehensive study of Mexico. He made very good use of his eyes and his time while on this trip, and conceived the idea of writing a series of articles which would deal with the history of the Republic of Mexico.

In addition to knowledge obtained on that trip and a general acquaintance with Mexican conditions which he already possessed, he made an exhaustive study of the standard works on Mexico. The story he evolved was a straightforward narrative, in a connected manner, of the leading incidents in Mexico's history from the earliest times.

Without especially aiming at literary style or attempting to handle the theme otherwise than as a trained newspaper writer would handle any event of the day, he yet produced a clear, lucid narrative of the nation's history which took about 70,000 words in the telling and ran through 38 issues of the *Dallas News* and *Galveston News*.

The significant fact in connection with the appearance of these articles—the fact which seems to come as a revelation—is that the articles struck a popular chord. The circulation of the papers was greatly increased and advertisers were in rivalry for positions on the pages where the articles were printed. They were given a prominent position on the first page of the paper, and at first the "run over" was continued to the second page. When the demand for advertising space on the second page became somewhat burdensome the "run over" was carried to the third page, and here the same demand for position followed.

A. P.

To Enlarge Baton Rouge Refinery.

Amos K. Gordon, treasurer of the Standard Oil Co. of Louisiana, informs the MANUFACTURERS RECORD that his company will make extensive additions to its large refinery at Baton Rouge. It has purchased 150 acres of land adjoining the present refinery at North Baton Rouge, and will practically double the capacity. The construction will be of the same character and scope as the original plant, whose construction was begun early in 1910 and understood to represent an expenditure of probably \$2,000,000 when it was completed.

Big Texas Irrigation Company.

The Asherton Artesian Land & Irrigation Co. of San Antonio, Tex., has been chartered with \$600,000 capital stock by Asher Richardson, Littleton Richardson, M. H. Burt and W. H. Mackey.

Representatives of 15 North Carolina counties have enthusiastically endorsed the project for a great central highway across the State from Beaufort Harbor to the Tennessee line.

GOOD ROADS

Some Good Roads' Agencies in North Carolina.

By M. H. STACY, Professor of Civil Engineering, University of North Carolina.

[Written for the Manufacturers Record.]

During the past few years much enthusiasm has been aroused throughout the Southern States on the subject of good roads. Many causes have contributed to bring about this condition. Aside from the fundamental demand for a better means of transporting the products of the farm to market, and thereby increasing the value of the farm lands, the advent of the automobile has accentuated the demand for improved highways. Besides this, in North Carolina, particularly, there has been one other potent reason. For many years the public school system of the State has been under the wise leadership of an efficient State superintendent, whose watchword has been "consolidation." In many cases several weak, isolated rural schools have been combined into one strong central graded school. The wisdom of this policy has been demonstrated beyond question where it was practical for students to go from one to three miles to attend the school. It has been the substitution of strength for weakness and efficiency for inefficiency. The necessary and immediate corollary of this centralization of school districts has been the demand for a good road leading from the farmhouse to the schoolhouse, and the good school has been conditioned upon the good road. These causes, working together, have created an unusual demand for improved highways.

Nor has the movement been lacking in enthusiastic advocates. The entire press of the State has raised a unanimous voice in its favor. Two periodicals, in particular, have waged an active campaign for the betterment of the highways. The *Progressive Farmer*, published at Raleigh, N. C., and the *Southern Good Roads*, published at Lexington, N. C., have labored in season and out of season, and have brought to the cause untiring zeal and energy. Whatever improvement is made in the highways of this State will be in large measure a monument to these periodicals, and will stand to their credit long after the editors have laid aside their pens.

But enthusiasm will not build good roads. The desire to improve and the willingness to pay for the improvement must be directed into practical channels. North Carolina is fortunate in the character of her State geologist, Joseph Hyde Pratt. He is a practical man who brings things to pass, and has gone all over the State holding good-roads institutes, organizing good-roads associations, and both in public lecture and private conversation has suggested and advised the means by which the roads in the various localities might be permanently improved. Closely associated with him as highway engineer is Mr. W. L. Spoon, an alumnus of the University of North Carolina, and for some time with the United States Department of Agriculture as road expert. His services have been very valuable in the engineering operations. Last summer, under his supervision, a party consisting of students from the University of North Carolina and Agricultural and Mechanical College, and in immediate charge of an instructor of the university, located 35 miles of highway in the mountainous section of the State, between Linville and Asheville, with a maximum grade of 4½ per cent. And other surveys are now in operation under Mr. Spoon's direction.

The University and the Agricultural

Contracts Awarded.

Abilene, Tex.—City has awarded contracts for paving several streets.

Alba, Okla.—City has awarded contracts for additional street paving.

Bay Minette, Ala.—City has awarded contract for constructing 4000 feet of sidewalks.

Huntington, W. Va.—City awarded contract for 37,000 square yards of brick paving and 29,000 linear feet of concrete curb and gutter; cost will be \$90,000.

Huntington, W. Va.—City has awarded contracts for brick and granite block paving, concrete curb and gutter, etc.

Mobile, Ala.—City awarded contracts for wood-block paving, cost about \$60,000, and for cement curbing to cost about \$4000.

Palatka, Fla.—City has awarded contracts for considerable vitrified brick paving and for concrete sidewalks.

Vidalia, La.—City has awarded contracts for laying 900 yards of six-foot concrete sidewalks.

Contracts to Be Awarded.

Crowley, La.—City will soon award contracts for constructing additional cement sidewalks.

Cullman, Ala.—City has appointed engineer to prepare plans for constructing about five miles of sidewalk.

Fayetteville, N. C.—City will construct light traffic street pavement to the amount of \$35,000.

Hanlin, Tex.—City will pave business section with brick on concrete base.

Louisville, Ky.—City will receive bids until March 3 for repaving with vitrified blocks on various streets; 14,700 square yards.

Norfolk, Va.—City will receive bids until March 1 for paving Bank street; about 4125 square yards.

Nortonville, Ky.—City will macadamize streets.

Oklahoma City, Okla.—City will receive bids until February 27 for grading, paving with sheet asphalt, etc., on various streets.

Pecos, Tex.—City is reported as to construct additional sidewalks at a cost of \$15,000.

Richmond, Va.—City will receive bids until February 28 for paving roadbeds of certain streets with granite spall.

IMPORTANCE OF GOOD ROADS.

Poor Highways the Greatest Handicap to Arkansas Development.

The following is an extract from a letter written by J. H. Hand of Yellville, editor of the *Mountain Echo*, who was recently elected a member of the executive committee of the Arkansas Good Roads and Drainage Association, to the Little Rock Board of Trade, George R. Brown, secretary:

"My experience with prospective home-seekers from other States has convinced me that our poor roads are the worst handicap which we have to contend with today in getting the best class of people located among us; for, as many have said to me, our roads rather indicate a lack of progressiveness on the part of our people, and they do not care to set their families down in a community that is behind the times, even though the chances to make money might be all that they could expect or wish for. Hoping that our home people may become awakened to the necessity of home progress and the advantages that would thus be realized by them, not to consider the attractions to others on the outside."

Indicating the wide interest in the subject of good roads in the State was a recent special issue of the *Arkansas Gazette* of Little Rock, which published among its features a map showing a suggested system of trunk-line roads connecting county-

seats and commercial centers of the State, a description of Scott's station pike, a stretch of 14 miles of macadam and other special articles.

Bristol to Memphis.

President George A. Gowan and Secretary Charles C. Gilbert of the Tennessee association, which plans to construct in two days, by a continuous work all along the route, a highway across Tennessee from Memphis to Bristol, are organizing the forces in the several counties to be traversed by the highway.

Winnsboro's Improvements.

H. J. Lea, clerk Eighth District Court, Winnsboro, Franklin parish, Louisiana, writes to the MANUFACTURERS RECORD:

"By reference to the map of Louisiana it will be seen that Franklin parish, Louisiana, is bounded on the west by Boueff River and on the east by Bayou Macon, both navigable streams. The lands are alluvial, with several small streams emptying into these two rivers to serve as natural drains, but the lands need to be cleaned out and opened up with proper canals and ditches cut to let out all surplus water, in order that better roads may be constructed. The land, which is already rich and fertile, will become better and more susceptible of improved and better methods of cultivation and the yield will be greater. It is only a question of a short time when this will be brought about, as the Legislature in its wisdom saw proper to enact laws looking to the formation of drainage districts and the issuance of bonds for such purposes. Up to this time this parish has not taken up the question of drainage, owing to the many other matters to be considered by our Board of Commissioners, or Police Jury, as we call them, i. e., a good and up-to-date courthouse and high-school building erected during the last few years; quite a number of steel bridges, 11 of which were built in 1910; parish jail repaired in 1910 at a cost of \$4252, and concrete culverts put in the roads at a cost of \$5000 during last year. It has been the custom of the Police Jury to pay cash or issue certificates of indebtedness for such improvements, which certificates are eagerly sought by home capital, and practically all of the outstanding paper is now held by the banks and citizens of this parish, which shows the financial condition to be good."

Denmark to Ehrhardt, S. C.

C. W. Garris, chairman, and others of the committee on the proposed railroad between Denmark and Ehrhardt, S. C., 16 miles, give notice that they will apply for a charter to build the line of standard gauge and to be operated by either steam or electricity. They will ask authority to build beyond the borders of the State and to connect with other roads. The minimum capital will be \$75,000. Denmark is in Bamberg county, at the intersection of the Atlantic Coast Line, the Seaboard Air Line and the Southern Railway, and the new road would connect with the Atlantic Coast Line at Ehrhardt, which is southeast of Denmark, and make a line via Walberton to a connection at Green Pond with the Coast Line's road between Charleston and Savannah.

Alamance Power Co.

The Alamance Power Co., which was incorporated recently, has organized to construct a water-power-electrical plant on Haw River. F. L. Williamson of Burlington, N. C., is president and treasurer, J. Harvey White of Graham, N. C., is vice-president, and Charles E. Menefee of Graham is secretary. The company has a capital stock of \$300,000, and its main offices are at Graham.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIG ELECTRIC RAILWAY.

Contract Let for 140 Miles of the St. Louis & Kansas City Line.

The L. J. Smith Construction Co. of Kansas City is reported to have been awarded the contract to build about 140 miles of the proposed St. Louis & Kansas City Electric Railway. Work will begin at Columbia and be pushed thence to Kansas City, 128 miles, with a branch about 10 miles long from Columbia to Harrisonburg, Mo. It will be started as soon as the weather will permit, probably in March.

D. C. Nevin, president of the railroad company, whose offices are in the Commerces Building, Kansas City, is quoted as saying that the entire line should be built in two years. The initial work is for the development of 18,000 acres of coal lands in Boone county. It is hoped to begin shipping coal into Kansas City by next fall. Later the line from Columbia to St. Louis will be constructed. The Harrisburg branch will eventually be extended to Moberly, Mo. Bonds have been sold to a syndicate in Paris. Two bridges will be erected over the Missouri River—one at Arrow Rock and the other at St. Charles. Details concerning the entrances to Kansas City and St. Louis are yet to be settled. The entire route from Kansas City to St. Louis is via Independence, Blue Springs, Odessa, Higginsville, Marshall, Arrow Rock, New Franklin, Columbia, Stevens Store, McCredie, Williamsburg, Mineola Springs, New Florence and Warrenton. From the latter there are two surveys—one via St. Charles and the other via Weldon Springs. Construction and equipment will cost about \$50,000 per mile. Financing is completed.

The other officers of the company are: John H. Berkshire, vice-president; B. L. Dorsey, second vice-president; H. E. Insley, secretary and auditor; Henry V. Johnson, treasurer, and C. A. Loomis, general counsel.

GEORGIA & FLORIDA.

Heavier Rails Ordered—Completing the Branch Into Moultrie, Ga.

Dispatches from Augusta, Ga., quote President John Skelton Williams of the Georgia & Florida Railway as saying that 70-pound rails have just been ordered for the six miles of track between Keysville and St. Clair. This will give the road standard rails all the way from Augusta, Ga., to Madison, Fla. He denied rumors that the Savannah, Augusta & Northern Railroad and the Savannah & Statesboro line would be purchased.

In connection with offerings of securities of the property a statement has been issued about the status of the Georgia & Florida, which has been built up during the last few years by the consolidation of several small roads and the construction of connecting links. The main line now is from Augusta to Madison, 250 miles, and the longest branch is from Norman-town Junction to Millen, Ga., 44 miles; it is known as the Millen division. The Barrows Bluff branch is 19 miles long; the Sparks branch 12 miles, and the Sparks Western, which was recently acquired and is a continuation of the latter, is 22 miles long; this is just being finished by the construction of four miles of line to reach Moultrie, Ga. A spur about two and one-half miles long near Swainsboro, Ga., completes the system, making a total of 350 miles of line. There are about 37½ miles of side passing and yard tracks. All is

owned by the company excepting 25 miles from Keysville to Augusta, Ga., on the Augusta Southern Railroad, and about half a mile at Millen, Ga., belonging to the Central of Georgia.

The company has for some time contemplated the building of an independent entrance to Augusta, diverging from the main line at St. Clair several miles south of Keysville. The main line crosses at right angles all the important roads running east and west in Georgia.

NORTHERN CENTRAL REPORT.

Increase of Earnings and Other Progress Shown During the Year 1910.

The published synopsis of the annual report of the Northern Central Railway Co. shows operating revenues, \$12,798,628.31; operating expenses, \$10,781,409.06; net operating revenue, \$2,017,159.25; total net revenue, \$2,024,023.62; operating income after payment of taxes, \$1,583,137.85; gross income, \$2,921,478.45; net income, \$1,859,125.69. After payment of dividends, etc., the balance transferred to the extraordinary expenditure fund was \$287,148. Balance to credit of profit and loss December 31, 1910, \$9,658,391.23.

The balance sheet shows total assets \$43,588,917.12, which includes the road and equipment at \$30,156,286.67.

There was an increase of nearly 7 per cent. in the number of tons of freight moved, and the increase in the number of passengers was of very nearly the same percentage. The gross revenue increased not quite 4½ per cent. as compared with 1909, but the operating expenses increased more than 12½ per cent. owing to the increase of wages (of all employees receiving less than \$300 per month) and various adjustments, besides the greater general outlay for maintenance. The maintenance expense also include the work done during the year at Union Station, Baltimore, and elsewhere in that vicinity and at Sunbury, Pa. The Baltimore station work will doubtless be finished this year, as will the work at Orangeville and at Mount Vernon yards. The Orangeville work includes a new yard and engine-house.

The report is signed by President James McCREA.

MAY SPEND MILLIONS.

George J. Gould to Be Chairman of Missouri Pacific—Extensive Betterments.

It is announced from New York that George J. Gould will resign the presidency of the Missouri Pacific Railway after the annual meeting March 14, and that he will be elected chairman of the board, but that the presidency will be filled either then or later by the selection of an operating railroad man. Mr. Gould is quoted as saying that it has long been his intention, known to others interested in the railroad, to retire as soon as the services of the best-equipped railway man could be obtained; the presidency had been offered to one man some time ago, but he was unable to accept it. Others are now under consideration, and it is hoped that a choice will be made in the very near future. The headquarters of the new president, it is said, will be at St. Louis.

The interests which control the Missouri Pacific are expected to take immediate steps to spend a large sum of money for its physical improvement. At least \$50,000,000 will, it is said, be thus used, and from that figure the estimates range upward to \$200,000,000. Besides the Gould estate, the banking house of Kuhn, Loeb & Co. of New York, John D. Rockefeller, the Deutsche Bank of Berlin, Blair & Co. and the Russell Sage estate are among those mentioned as being interested in the road.

Harrison Mineral Belt Plans.

An officer of the Harrison Mineral Belt Railway Co., Harrison, Ark., writes that charters have been obtained for 46 miles in Arkansas and some 20 miles in Missouri. Maps, profiles and estimates of cost have been prepared for practically all the difficult and expensive parts of the line, and fair progress has been made toward financing it. If the deal in progress is consummated it will be financed within the next 90 days.

The entire route proposed is 452 miles from St. Louis, Mo., to Fort Worth, Tex., via Salem, Houston, Cabool and Gainesville, Mo.; Pace's Ferry, Dodd City, Harrison, Fallsville, Clarksville and Fort Smith, Ark., besides other places between the latter point and Fort Worth. There will be four bridges of importance, all of steel construction, and ranging from 500 to 3000 feet long and crossing the Meramec, the White, the Arkansas and the Red rivers, respectively. One will be at Pace's Ferry, on the White, and another at Clarksville, on the Arkansas. Two tunnels through rock will also be required, one near Pace's Ferry and the other at Fallsville, although the latter may be avoided. One will be about 300 feet and other 3000 feet long.

The route lies through diversified country, some being rolling, some rough and some level. Connections will be made with the Frisco at Salem, Mo.; the Fort Scott & Gulf at Cabool; the Iron Mountain at or near Bergman, Mo., and at Clarksville, Ark., and the Missouri & North Arkansas at Harrison. It is not yet decided when bids for construction will be received.

The officers are C. D. Allison, president; J. H. Kuder, vice-president and general manager; E. E. Scofield, secretary and treasurer; John W. Davidson, chief engineer. Address Harrison, Ark.

Louisville Railway Work.

The annual report of the Louisville (Ky.) Street Railway Co. for 1910 shows gross income \$3,196,534; expenses and charges, \$2,551,197; net earnings, \$645,397. After paying dividends, etc., there was carried to the income account \$18,747. There were 35 new cars added to the equipment during the year, a fireproof addition to the boiler-house was erected, a new turbine engine was installed and steps were taken to increase the water supply. On the track about seven miles of heavy girder rails were laid on paved streets, and nearly three miles of heavy T rails in the suburbs. Two of the new cars were built in the shops of the railway company, but the others were purchased from the Cincinnati Car Co. To provide for the turbine and generators, Babcock & Wilcox boilers were put in the boiler-house, and furnish 2000 more horse-power. The company has also placed some of its feed wires under ground.

New Equipment, Rails, Etc.

The Virginian Railway, says a dispatch from Norfolk, has ordered 1000 steel hopper cars from the Pressed Steel Car Co., Pittsburgh, Pa.

The Richmond & Henrico Railway, Richmond, Va., has, it is reported, ordered from the Virginia Bridge & Iron Co., Roanoke, Va., 400 tons of steel for a viaduct.

The Norfolk & Western Railway, says a report from Roanoke, has placed a contract for six all-steel postal cars.

The Roaring Fork Railroad, according to a market report, has ordered a consolidation locomotive from the Baldwin Locomotive Works, Philadelphia.

The San Antonio (Tex.) Traction Co. will, it is reported, purchase 10 new pay-as-you-enter cars.

The Louisville & Nashville Railroad is

reported building three all-steel passenger cars at its own shops.

The Chattanooga (Tenn.) Railway & Light Co. is reported to have ordered two cable cars from the G. C. Kuhlman Car Co., Collinwood, O.

The Georgia & Florida Railway, says a dispatch from Augusta, has ordered steel rails for six miles of track between St. Clair and Keysville, Ga.

The Wrightsville & Tennille Railway is reported to have ordered a 10-wheel locomotive from the Baldwin Locomotive Works.

Stone & Webster, Boston, are reported getting prices for 625 tons of standard section steel rails for work in the South.

C. S. Woods, Box 392, Houston, Tex., writes that the San Leon Terminal Railroad Co., not yet organized or incorporated, will need five miles of 60-pound relay rails, 15,000 ties, bolts, spikes, etc., besides two motor cars of medium size.

Stone & Webster Manual.

Stone & Webster, 147 Milk street, Boston, have issued their manual of electric railways and lighting properties for 1911. It is bound in leather, of convenient size for the pocket. It gives a brief description of each of the various properties under the Stone & Webster management, and various financial particulars. The combined capitalization of the 31 companies is \$147,723,200, which is composed of stocks amounting to \$79,394,700 and \$68,328,500 bonds and notes. The totals for 1910 were gross earnings, \$22,023,126; operating expenses, \$12,251,915; net, \$9,771,211; balance after payment of taxes, \$8,626,713. Anyone interested in these properties will find a fund of valuable data in the little book, together with plats of the different properties in all parts of the country.

Maryland & Pennsylvania Year.

The report of the Maryland & Pennsylvania Railroad Co. for the year ended December 31, 1910, shows gross revenue, \$427,673,96, an increase of 6½ per cent. as compared with the next preceding year; expenses, \$293,543,36, an increase of 2½ per cent., the net increase being \$19,586.99. The surplus for the year was \$8,601.53, making a total surplus of \$16,536.99.

The general manager's statement shows earnings, \$425,827.30; expenses, \$280,913.72; net revenue from operation, \$144,913.58; net income after payment of taxes, \$132,283.94; percentage of expenses to earnings, 65.97.

John Wilson Brown is president and J. S. Norris general manager.

Interurban Electric Plan.

James P. Ward, engineer, Irondale, Mo., writes that he represents parties who are preparing to build an interurban electric railway which will be operated with power generated at hydro-electric plants. The line will begin at St. Louis and extend through the Bellview Valley in Washington county, Missouri, with branches to the south, southeast and southwest, opening up a region that is now without railroad facilities, but which is wonderfully rich in natural resources. There are farming, mineral and timber lands, besides deposits of clay. An immense amount of water-power is now going to waste. As soon as some minor details are arranged the enterprise will be put in a going condition.

St. Louis, Oklahoma & Western.

E. T. Brown, chief engineer of the St. Louis, Oklahoma & Western Railway Co., Coalgate, Okla., writes that company was chartered in October, 1909, to build a line traversing some 300 miles of Oklahoma from east to west. There are 28 miles

graded, but more capital is needed. The grade now built can be placed in operating condition for \$5000 per mile. The route crosses 17 north and south trunk lines. The tonnage available includes coal, asphaltum, brick, granite, marble, lime, cement and other minerals and mine products, besides live-stock, timber, grain, etc. It runs through rich agricultural lands which need development, and follows the coal belt for 70 miles. Bonuses are to be granted by towns.

Glen Rose & Walnut Springs.

An officer of the Glen Rose & Walnut Springs Railway Co., Glen Rose, Tex., writes that the line to be built is 60 miles long from Walnut Springs via Glen Rose to Fort Worth, Tex., which will include a bridge 400 feet long over the Brazos River. Connection will be made with the Texas Central Railroad at Walnut Springs. The route is through broken country. The directors include J. H. Farr, president and general manager, at Glen Rose, Tex.; M. W. Shaler, vice-president, Utica, N. Y.; W. D. Morton, treasurer; F. E. Johnson, secretary; A. L. Sadler, J. A. Rushing, J. M. Goldstein, W. M. Davis and J. M. Montgomery. T. M. Simpson is chief engineer.

Had a Successful Year.

After the annual meeting of stockholders of the Birmingham (Ala.) Railway, Light & Power Co., which was held recently, President A. H. Ford was quoted as saying that at least \$600,000 would be spent for improvements this year. Much of this will be for the betterment of rolling stock. Last year the company spent \$520,000 for improvements. The company carried during the year 40,250,000 passengers, an increase of 5,832,303. It was stated that the income account showed that the year was the most prosperous that the company has experienced.

A Growing Electric Road.

March 20 is the date set for the receiver's sale of the Washington, Baltimore & Annapolis Electric Railway, which is to take place at Naval Academy Junction, Md. It is expected that the reorganization committee will bid in the property, for the rehabilitation of which a plan has been agreed upon. Ten new cars have recently been received from the Niles (O.) Car & Manufacturing Co., and are being put on the line to meet the demands of growing traffic.

Railway Bridge at Mobile.

An official letter says that the Pensacola, Mobile & New Orleans Railway Co. is endeavoring to obtain the consent of the joint river and harbor committee of Mobile, Ala., to approve the site selected by the company for the movable span bridge across Mobile River. Until this is secured nothing but preliminary work will be done for the structure. The movable spans will be of steel and the trestle work will be of cypress piling. No request for bids will be made, and neither plans nor specifications are ready to be shown.

May Spend \$1,000,000.

The Gulf, Colorado & Santa Fe Railway Co., which is the Texas corporation of the Santa Fe system, will, according to reports from Galveston, spend \$1,000,000 additional at Port Bolivar, on the bay opposite that city, to enlarge its facilities there for terminal handling of timber and other business. An officer of the road is quoted as making the announcement.

A Kentucky Coal and Iron Road.

A dispatch from Harlan, Ky., says that the Wasioto & Black Mountain Railway, according to announcement by T. J. Asher,

president, will begin service for both freight and passengers March 1 to a point one mile from Harlan. It is under contract to enter the town by April 23. Grading is almost completed on the extension of 27 miles up Poor Fork to the operations of the Wisconsin Steel Co. Track-laying will be resumed immediately for the completion of the 22 miles remaining.

San Leon Terminal Road.

The San Leon Terminal Railroad Co., which is not yet incorporated or organized, says a letter from C. S. Woods, Box 392, Houston, Tex., proposes to build a line five miles long from San Leon Station to the water-front at San Leon, Tex. This will include two cement culverts. Route is over level prairie. It is not yet determined when bids for construction will be received, but it will be before April 15. Connection will be made with the Southern Pacific Railway. Equipment and track material will be needed.

Railroad Notes.

The new passenger station of the Louisiana & Arkansas Railway at Shreveport, La., has been completed and opened for service.

The San Antonio (Tex.) Traction Co., it is reported, will spend \$250,000 for new equipment, double-tracking, additional machinery, improvement of the electric plant and other betterments.

A report from Wheeling, W. Va., says that the Lake Erie, Alliance & Wheeling Railroad will soon build an entrance to that city via Martin's Ferry, Ohio, and the terminal bridge over the Ohio River.

R. L. Robertson, Lawton, Okla., who is interested in the proposed railroad from Lawton via Duncan to Ardmore, Okla., writes that the line will be 100 miles long through rolling country, and will connect with the Rock Island, the Frisco, the Santa Fe and the Missouri, Kansas & Texas railroads. Bids for construction will be opened August 31 next.

In this issue of the MANUFACTURERS RECORD is the announcement by an advertiser that it is desired to hear from an individual, a corporation or a syndicate who might wish to be interested in the financing and construction of a railroad to be about 60 miles long in a prosperous section of the South, to open a fine section of country now without railroad facilities.

Thus far, it is reported from Kansas City, more than \$16,000,000 have been spent toward the construction of the new union railroad station there. The excavation work is to be completed next summer, and it is estimated that the building can be finished in two years, so that it will be ready for service in the summer of 1913, although an ordinance fixes the time limit in 1914.

An officer of the Virginian Railway says that the rebuilding of line between Harper and Cirtsville, W. Va., nearly two miles, includes two steel bridges on concrete foundations. One is 750 feet long and 115 feet high, the other 570 feet long and 135 feet high. They are, respectively, 32 and 33.7 miles from Deepwater, W. Va. Carpenter & Boxley of Roanoke, Va., are the contractors.

A report from Tallahassee, Fla., says that the Georgia, Florida & Alabama Railway Co. contemplates another extension, and that several important plans for the development of the section of Florida immediately surrounding Tallahassee will be matured in the near future. The headquarters of the road are at Bainbridge, Ga., the president being J. P. Williams of Atlanta, and the chief engineer C. G. Barney.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Parker Cotton Mills Co.

The Parker Cotton Mills Co. of Greenville, S. C., is arranging for its proposed organization to control nine cotton-mill companies of South Carolina. These companies were previously named by the MANUFACTURERS RECORD, and they have about 360,000 spindles, with about 9000 looms, for manufacturing print cloth and finer numbers, dimities, etc. The new company will have a capital stock of \$10,000,000, and its annual output will be about \$5,000,000 worth of cotton goods. It is understood that the officers will be as follows: President, Lewis W. Parker; vice-president, Thomas F. Parker; treasurer, Alexander Macbeth; secretary, M. M. Trotter, Jr. An outline of the company's plan was announced some weeks ago.

Dillon Cotton Mills.

The stockholders of the Hamer Cotton Mills of Hamer, S. C., and of the Dillon Cotton Mills and the Maple Cotton Mills of Dillon, S. C., have decided to consolidate the three companies under the title of the Dillon Cotton Mills. They have appointed a committee to perfect the new organization, and it is probable that W. M. Hamer will be president and treasurer. These three plants have a total of 38,080 ring spindles and 3600 twister spindles, operating on the production of cotton yarn. Their capital stock is \$800,000.

The Cotton Movement.

In his report for February 17 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 170 days of the present season was 10,028,611 bales, an increase over the same period last season of 1,604,218 bales. The exports were 5,939,806 bales, an increase of 1,519,558 bales. The takings were, by Northern spinners, 1,598,122 bales, a decrease of 717 bales; by Southern spinners, 1,328,988 bales, a decrease of 816 bales.

The Meritas Mills.

The Meritas Mills of Columbus, Ga., expect to begin manufacturing before March 1. This enterprise has previously been fully described by the MANUFACTURERS RECORD. It is capitalized at \$300,000 and has an equipment of 10,000 spindles, with 170 52-inch looms, driven by 450 electrical horse-power and employing about 125 operatives. The output is cloth for conversion into oilcloth.

Bowen-Jewell Company.

The Bowen-Jewell Company of Chattanooga has been incorporated with a capital stock of \$200,000 to manufacture cotton goods. Its incorporators are W. L. Bowen, D. A. Jewell, A. S. Bowen, J. B. Cody, L. M. Carr and George Bradley.

The Humboldt (Tenn.) Cotton Mills will install additional new machinery. This company now has 8260 ring spindles, 184 narrow looms, 56 broad looms, etc., for manufacturing sheeting, bag cloth, etc.

The Georgia National Bank of Albany is circulating an attractive brochure, handsomely illustrated, setting forth the advantages of Albany, Ga., and its vicinity.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

North Carolina Timber Lands.

C. S. Aldrich, treasurer of the Nelson Lumber Co., Johnson City, Tenn., has sold 13,000 acres timber land in Yancey county, North Carolina, to W. J. Brown and associates of Punxsutawney, Pa., for \$300,000.

It is estimated that this land will cut 300,000,000 feet of merchantable lumber, of which 100,000,000 feet is hardwood and 200,000,000 feet is spruce and hemlock—about 90 per cent. spruce to 10 per cent. hemlock. Of the hardwood, about 30 per cent. is poplar and 70 per cent. is oak, basswood, cherry, ash and chestnut. This timber adjoins the 5000 acres of land previously noted by the MANUFACTURERS RECORD as having been purchased by the Carolina Spruce Co. This tract will cut about 100,000,000 feet, 75 per cent. being spruce and the balance is poplar, ash, oak, basswood, cherry and chestnut. The timber will all be marketed over the Carolina, Clinchfield & Ohio Railway, and there is now a branch line 20 miles long being constructed to reach this timber.

W. J. Brown will erect a double eight-foot mill and the Carolina Spruce Co. will erect a single eight-foot mill about one mile from the Brown company's mill. In addition to the lumber produced from these tracts, there will be several hundred thousand cords of pulp and acid wood.

Clearing 900-Acre Tract.

The Forest Lumber Co. is clearing a 900-acre tract of pine lumber land on New River, nine miles from Savannah, and marketing it by way of Savannah, to which shipping point it is carried by lighters and then loaded on vessels for destination.

The land is said to be particularly well adapted for truck farming, an industry which is expected to reach large proportions in this section. Arrangements are now being made to have vessels enter New River and load at the mill, situated on Red Bluff plantation, between Savannah and Bluffton. It is estimated that about two more years will suffice to complete the clearing, and between 500,000 and 1,000,000 feet of lumber has already been cut and shipped. J. S. Smith, Savannah, is managing the mill and clearing operations.

Buys Rice Institute Lands.

It has been announced at Houston that Messrs. J. M. West of that city and Sam Parks of Beaumont, Tex., have purchased the Rice Institute lands in Louisiana. These lands comprise about 45,000 acres in Calcasieu parish, and the purchase price is said to be \$4,500,000, the intention of the buyers being to provide for general development in the future. The property is mainly standing pine timber, and comprises one of the few large tracts of this timber available for development in the South. It has been owned by the William M. Rice Institute, whose directors were recently offering it for sale.

Catalpa for Lumber.

Secretary George R. Brown of the Little Rock Board of Trade is circulating an interesting statement prepared by A. H. Langworthy, dealing with the opportunities in the cultivation of the catalpa species for shade and ornamental purposes, as well as for lumber. Mr. Langworthy in his statement points to the rapid growth of the catalpa, yielding in 10 or 12 years from planting from 250 to 300 feet board

measure of merchantable timber to the tree.

Pulp Wood in 1909.

Pulp wood consumed in 1909 by 233 mills amounted to 4,001,607 cords, an increase of 654,654 cords over 1908 and of 38,947 cords over 1907. North Carolina led the South in the production of pulp wood in 1909 with 145,000 cords, nearly double the consumption in 1908; West Virginia was second with 109,166 cords and Virginia third with 92,039 cords. Figures for Maryland, South Carolina and Texas are not available separately.

Veneer Stock.

In 1909 there were spent \$8,977,516 for 435,981,000 feet, log scale, of wood used in the manufacture of veneer stock in this country, 16,057,000 feet, valued at \$1,565,598, having been imported.

The National Wholesale Lumber Dealers' Association will hold its annual convention at Washington, D. C., March 1 and 2.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

A Letter from Moscow.

P. J. Karpatcheff, Moscow, Russia, writes the MANUFACTURERS RECORD:

"I got your address from Messrs. Fridland & Hilart of Moscow. I do a considerable business in natural and artificial leather (dressed and undressed), American shoes, travelers' supplies, upholstery goods, technical and scientific articles, hardware, metals, electrical and lighting supplies, automobiles and accessories. I would be very much obliged to you if you would put a notice in your journal to the effect that I am looking for established houses handling the above goods, so that I might become their agent in Russia. I thank you very much for the kindness."

Automobiles, Ore Reducers, Etc.

Z. Friedland and A. Hillaert, 68 Tverskaya street, Moscow, Russia, write the MANUFACTURERS RECORD:

"We are in the market to operate as agents on commission for the sale of automobiles and their accessories, hardware, millstones and equipments for reducing ores. We are in position to do a large business if we get the right kind of propositions. This concern has foundries at Clermont, Ferrand, France."

Textile Fabrics, Hardware, Etc.

Behari Lal Maheshwary & Co., Amritsar, India, write the MANUFACTURERS RECORD:

"Please introduce us to some most respectable firms who are dealing in the export of cotton and woolen piece goods, hosiery, stationery, hardware and other sundry goods, as we are interested in such kinds of goods. We may point out that we can give a very good reference if desired by the firms there."

Wants Wireless Telegraph Station.

Dr. Geo. J. Hullinghorst, Ruatan, Honduras, writes the MANUFACTURERS RECORD:

"I am desirous of establishing a wireless station at this point, and, not being acquainted with any firms in that line, would gladly appreciate any information you could render me relative to same."

MINING

COAL IN THE PIEDMONT.

Large Contracts With Textile Industry Representatives.

It may be recalled that some months ago the MANUFACTURERS RECORD gave some account of plans of the Clinchfield Fuel Co. to tender expert advice as to the purchasing and economical use of coal in the industries of the territory in which it operates. Effects of such a policy are manifest in facts made known to us by Mr. L. S. Evans, general manager of the company at Spartanburg, S. C., the present Southern terminal of the Carolina, Clinchfield & Ohio Railway. He writes:

"We have made contract with the South Carolina Cotton Manufacturers' Association for their requirements the ensuing year, which will approximate from 200,000 to 250,000 tons. There are many mills in South Carolina with whom contracts are made independently of the association, and we expect to add most of them to our list. In addition to the South Carolina tonnage, we have had the good fortune to close with the North Carolina Cotton Manufacturers' Association for their requirements, which will approximate 275,000 tons. We thus begin the new year with a very substantial tonnage, which is very gratifying to us. In addition to the contracts mentioned, we have several hundred thousand tons of miscellaneous industrial business in the two Carolinas not connected with the committees, and we have contracts with the railroads in the South for something over a million tons. The aggregate of these contracts closely approaches the estimated production of coal at our operations for the ensuing year, and it is probable we shall be obliged to withdraw from the market during the next 30 or 60 days. Last year our selling campaign was not begun until April, and we withdrew from the market July 1."

Developing Oklahoma Salt Resources

One of the largest salt plants in the Southwest is to be erected at Okeene, Okla., by the Midland Salt Co., Colcord Building, Oklahoma City. This company has been chartered with a capital stock of \$200,000, the incorporators being C. C. Pottenger, F. H. Foster and J. M. Remington, all of Oklahoma City.

The main building at Okeene will be built of wood and brick, 150x700 feet, and with the machinery will cost \$125,000. When in operation about 75 men will be employed.

All of the northern part of Blaine county is said to abound in large quantities of brine, which is reached at a depth of 230 feet. It is treated by evaporation in salt vats after having been pumped from the wells. The Midland Salt Co. expects to build another plant in Western Oklahoma after the Okeene plant is completed and in successful operation.

Dallas Coal, Iron & Steel Co.

The MANUFACTURERS RECORD of January 19 detailed the organization of the Dallas (Tex.) Coal, Iron & Steel Co. W. F. McClurg, the company's engineer in charge at Jefferson, Tex., sends further facts regarding the company as follows:

"The sale of the Jefferson Iron Co.'s property has been effected and the property is now owned by the Dallas Coal, Iron & Steel Co.

"The property consists of one blast furnace and 7000 acres of the richest iron-ore lands of Northeast Texas.

"It is the intention of the new company to modernize the present furnace plant, to build an open-hearth basic-steel furnace of

200 tons daily capacity, to operate a rolling mill at Jefferson and manufacture merchant bars, cotton ties, track material and horseshoes.

"The Dallas Coal, Iron & Steel Co. is incorporated with an authorized capital of \$3,500,000. It has made arrangements to build and operate coke ovens at Jefferson. It owns some very fine metallurgical coking coal on the upper Ohio River, which it intends to transport down the river to Vicksburg by barge, thence to Jefferson by rail. The arrangement as worked out bids fair to make coke at a very low cost. Connecting the coke with the cheap ore, in the writer's judgment, pig-iron can be manufactured at Jefferson fully as cheap as is now being done in Birmingham.

"The quality of ores which this company controls is of the brown hematite variety, and yields its metallic ore very easily, and, taking the ore upon a whole, the average furnace mixture will be about 53 to 54 per cent. metallic iron."

Pocahontas Coal Shipments.

The official figures showing the shipments of coal from the Pocahontas coal district over the Norfolk & Western Railroad for January are interesting, from the fact that in spite of a heavy drop in tonnage during the last 10 days of the month, with embargoes on shipments both east and west, the road carried over 1,500,000 tons during the month. While the coke figures are not available, the coke shipments, according to information at hand, were probably larger than in any previous month. The average monthly shipments of coal over this road for the seven months, including January, were 1,529,000 tons, or a total of 10,703,000 tons.

Ravia Mining & Milling Co.

The Ravia Mining & Milling Co. was recently organized at Ravia, Okla., with a capitalization of \$100,000 and elected officers as follows: E. W. Rose of Dallas, Tex., president; J. E. Harris of Ravia, vice-president; T. A. Hood of Dallas, second vice-president; R. T. Wilkinson of Ravia, treasurer; A. M. White of Dallas, secretary. This company holds 1500 acres of mineral lands in the district, and will install machinery for mining.

Consolidation Coal Co.

The Consolidation Coal Co. of Baltimore officially announces that the directors have elected the following officers: Clarence W. Watson, chairman of the board; Jere H. Wheelwright, president; Fairfax S. Landstreet, vice-president; George W. Fleming, vice-president; Geo. T. Watson, vice-president. T. K. Stuart is secretary.

Purchased by French Capitalists.

A dispatch from Henderson, Ky., states that 40,000 acres of Hopkins county (Ky.) coal lands have been sold to French capitalists for \$400,000 by L. S. Jackman of Henderson, J. T. Edwards of Providence, Ky.; William Lynch of Dawson Springs, Ky., and L. B. Henry of Dixon, Ky.

To Develop Iron Property.

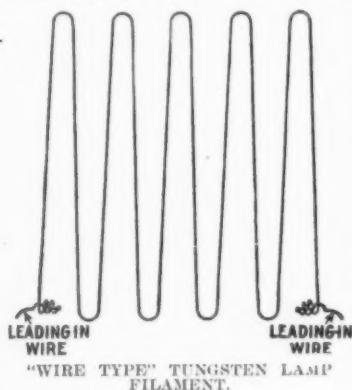
The Cane Creek Iron Ore Co. of St. Louis has been chartered with \$1,000,000 capital stock by Frank H. Mitchell, Lee F. Mitchell and George L. McBride of St. Louis, D. W. Thompson of Randolph, Ill.; J. J. Love of Bloomington, Ill., and G. W. Wilson of Onalaska, Wis.

The *Progressive Banker*, published by the employees of the City Bank & Trust Co. of Mobile, Ala., contains in its prosperity number an article on Mobile's prosperity in reality, written by John F. Carter, Jr., secretary of the Mobile Progressive Association.

MECHANICAL

Westinghouse "Wire Type" Tungsten Lamp.

The principal feature that prevented the immediate general acceptance of the tung-



sten filament lamp when it was first introduced was the cost of keeping up the supply of new lamps as breakage occurred in handling or in use, due to the fragility of

tungsten lamp to meet this requirement, as proved by a series of adequate tests. (See three accompanying views.)

The construction of this "wire-type" lamp was made possible by the development of a method of manufacturing the filament by which it is produced in long lengths. This filament is loosely rove over the ends of the upper and lower "spider legs" of the lamp, and the ends wound in the shape of spiral springs around the leading-in wires and connected to them by fusing. Thus in the "wire-type" lamp only two joints are necessary, and these are made flexible, so as to protect the filament from breaking due to vibration or shock. This long filament also insures the uniformity of the quality essential to a good lamp, eliminating the possibility of one weak filament minimizing the value of the remaining ones where several filaments are used in one lamp.

By the Westinghouse process a whole spool of uniform filament is made at one time, and is not subject to variations in quality that may occur in filaments composed of several sections made under varying conditions. This detail of manufacture, in connection with the other special fea-

By greatly reducing breakage in handling and in service, the Westinghouse "wire type" tungsten lamp enables the user to benefit by economy in maintenance as well as in current consumption. The results obtained from tests are claimed to show that the long life of the "wire-type" lamp is a strong point in its favor, and that the uniformity of the filament prevents blackening during this long life.

"Burmite" Roofing and Siding.

Because of unusual activity in the construction of buildings during recent years, there have been many new and improved building materials offered to building owners, architects, contractors and others interested. Important building materials are roofing and siding, and consequently considerable attention has been given to these products. Inventors and manufacturers have devised and tested various kinds of roofing and siding that have proven practical because of their economy of application and their durability of surface, one of these being "Burmite," which is manufactured by the Birmingham & Seaman Company, offices in the Tribune Building at Chicago. This company is a well-known paper manufacturer, and its roofing department is extensive and rapidly growing because of the success of "Burmite," which is referred to as the only material except one having a cement composition between the burlap and felt base, the felt base being thoroughly saturated with pure asphalt, and the claim is made that it will not dry out. In the center of this "Burmite" material is embedded an eight-ounce Calcutta burlap, placed there to give added strength, and carefully protected on the top and bottom by heavy layers of pure asphalt composition, into the upper layer of which is embedded, under great pressure and put there to stay, bird-sand for the one, and two permanent attractive natural colors of slate chips for the other style of surface covering. Further meritable features are included in the following claims:

"On account of the great resisting qualities of the slate-surfaced material, it is well adapted for the roofing of acid and fertilizing plants, chemical works, pulp mills and other buildings used for like purposes.

"This material, of either the bird-sand or the chipped-slate surfaces, when properly laid will last from 15 to 20 years, and the manufacturer guarantees it to last 10 years without coating.

"Burmite" is durable and attractive in appearance, the first cost being practically the only expense for years. Rain water is not affected by it, and immediately after the roof is laid the water running from it can be used for domestic purposes. Not only is the material adapted for flat or pitched roof, but it can be laid over old shingles or tin.

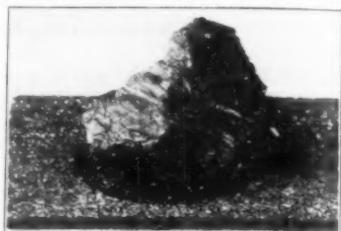
"It is made to meet extreme weather conditions, and is not affected by summer's greatest heat or winter's most rigid cold. It can be applied in winter as well as in the summer without danger of buckling, expanding or contracting—a feature which cannot fail to be appreciated by people experienced in roofing construction.

"It requires no painting, is odorless, is easily applied, does not require an expert to lay it, is inexpensive, always remains in a flexible state, and is strong and durable.

"Galvanized nails and lap cement, with instructions for laying the material, are packed in the center of each roll for all package shipments, and these articles are packed separately for bulk shipments."

Two accompanying views illustrate the fireproof qualities of this material. They represent a live coal on a "Burmite" surface and the same surface after the coal died. The surface of the roof was only

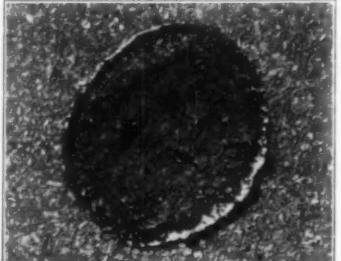
blackened. It came through the test in as good condition as ever, except that the coal left its impress on the mineral. There was no damage, and no danger of fire. The roofing surface immediately adjoining the live coal was not even discolored. The under coating was entirely uninjured. This test means that a roof covered with this material will not catch on fire from sparks or brands from locomotives, chimneys or burning buildings.



LIVE COAL ON "BURMITE."

Details of "Burmite" manufacture are described as follows:

"The foundation is a heavy sheet of wool felt, thoroughly saturated with pure asphalt. On top of this is a layer of 'Burmite' compound, consisting of pure asphalt and fiber, to even up the expansion between lower sheet of felt and burlap, thereby preventing buckling. Next to this is an eight-ounce Calcutta burlap, thoroughly embedded into the compound for the purpose of adding strength to the material. On top of this is placed a thin layer of 'Burmite' compound to even up the mesh in the burlap and to receive the extra heavy coating, so that when same is applied a uniform thickness is secured. Next to this is placed an extra heavy layer of 'Burmite' coating, into which is embedded—and put there to stay—by

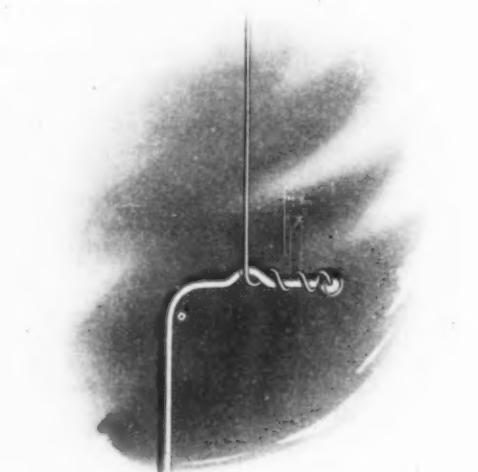


"BURMITE" AFTER COAL DIES.

passing material through steel rollers, under heavy pressure, finely-screened bird-sand for the one style and slate chips (there being two layers) secured by the crushing of slate of a permanent natural color and unfading quality, i. e., slate red and Stoddard slate green, for the other style of weather-resisting and fire-retarding surface."

Triumph Electric Transformers.

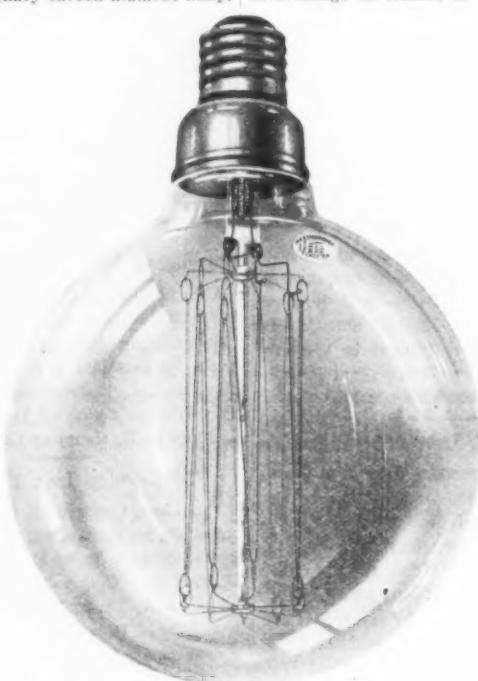
Herewith are two views of electric power and lighting transformers recently



LEADING-IN WIRE TUNGSTEN LAMP.

the filament. After the discovery of an incandescent lamp so economical as to consume only about one-third as much current as the ordinary carbon filament lamp,

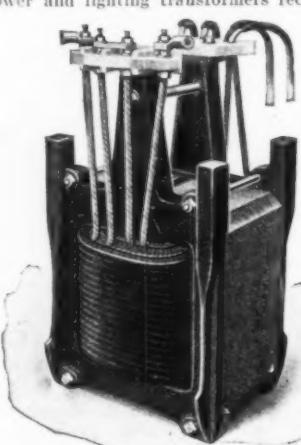
tures, leads the company to claim for this lamp the following advantages: Uniform life performance; small liability of breakage in transit or handling; posi-



"WIRE TYPE" TUNGSTEN LAMP.

the important object to be attained was to overcome its fragility. The Westinghouse Lamp Co. of Bloomfield, N. J., has developed the Westinghouse "wire type"

tive electrical contact at junctures with leading-in wires, with flexibility to obviate strains at point of contact; two electrical connections.



placed upon the market by the Triumph Electric Co. of Cincinnati. These machines are built for single-phase circuits.

and are of pole-type construction. The normal frequency is 60 cycles, but the frequency limits are from 50 to 140 cycles. Standard voltages are 1100-2200 for the primary and 110-220 for the secondary.

These transformers are of the improved shell-type construction, and possess many important characteristics of especial interest to engineers. The company says:

"Aside from mechanical construction and durability, transformer losses are the most important consideration in the selection of any particular design. Too often low core loss values are obtained at the expense of other important characteristics. It is a well-known fact that a disproportionately low core loss will produce excessive copper loss and poor regulation."

"Similarly, unnecessary insulation is directly responsible for high reactance, poor regulation and a tendency to overheating.



TRIUMPH ELECTRIC TRANSFORMERS.

the efficiencies being correspondingly low. While core losses are continuous, and should be eliminated as far as possible, it is manifestly an error to sacrifice regulation and increase the copper loss in order to obtain unduly low core loss. This is particularly true in regard to regulation. A poorly-regulating transformer will cause variation of potential at the lamps, giving rise to flickering and a marked tendency to decrease the life of the lamps.

"Triumph type 'L' transformers have excellent regulation, low copper losses and decidedly low core loss values, on account of the superior quality and high permeability of the silicon alloy steel used."

"We claim this steel is absolutely non-ageing, even at temperatures well beyond the safe working limit of the transformer.

"We are basing our core-loss claims on a sine wave, as recommended by the A. I. E. E., and these are therefore fixed by a well-defined standard."

"The type 'L' transformers are dried under vacuum, impregnated with a special insulating compound absolutely non-soluble in oil and possessing a very high melting point."

"Severe tests are carried out on each transformer before shipment, and all apparatus is fully guaranteed."

The Lane Sawmills.

The statement recently appeared that since the death of Cyrus H. McCormick, in 1884, no essential change has taken place in the self-binding reaper, which made his name famous all over the world. For a machine of such accomplishment to have been brought so near perfection that a quarter of a century could make no important improvement in its mechanism is remarkable, and yet other instances can be cited. In the passing of the years various minor parts may be added to or strengthened, but the general design was long ago so fully perfected that little further seems possible in the way of betterment.

Prominent among machines of this character are the Lane circular sawmills, well known for many years. These mills have

been before the public for over half a century, and while the Lane mill of today is different from the Lane mill of 1860, many of the fundamental ideas embodied by the earlier models are still in use.

Practically every feature of the Lane mill of today has seen at least a quarter of a century of service in actual use, and has been "tried out" to a point where further advancement seems impossible. Newly-discovered materials and mechanical processes may yet show the way to build an equally good machine of less weight or at a lower price.

As lumbering operations press farther and farther into remote regions and in consequence become increasingly difficult and costly to conduct, it becomes more and more a matter of moment to select machinery which shall give the least possible amount of trouble and do absolutely first-class work. In other words, machinery which shall turn out lumber that will sell at the highest market prices and turn it out in large quantities without delays or interruptions.

The Lane carriages and set works have found such favor in the eyes of practical mill men that they are often specified for standard makes of band mills when such seem preferable to any type of circular mill. In fact, it is the Lane lever set works which has done more than any of the other Lane inventions and patents to make this name one which sawmill men "swear by," for upon the accurate and perfect working of this device depends the quality (and therefore the value) of the lumber made. Being so constructed that it may be kept in perfect adjustment, even when long use has badly worn it, this setting device is a favorite wherever known.

When used in connection with band mills it is generally fitted with Wood's improved offset, a device working entirely without frictional or dragging action. Its action takes place instantly on the reversal of the carriage, but is so arranged that the throwing of a lever makes it inoperative when, for any reason, it may be desired to run the carriage back without offsetting.

Lane mills are built in 10 sizes, the smallest carrying a single saw 44 inches in diameter and the largest carrying a six-foot lower saw and four-foot upper saw. With the exception of the three smallest sizes, all are arranged to be fitted with top saws if desired, and arranged for the sawyer to do the setting or for a setter riding the carriage, as preferred.

"Ideal results from motor service are ob-

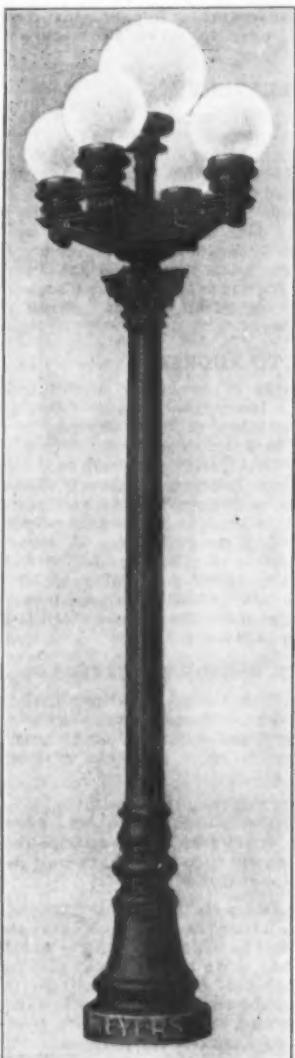
tained where full load each way can be handled with prompt loading and unloading facilities between two points. The nearer your situation approaches this ideal, the more profit in your installation.

"Our success is largely due to our ability to build trucks suitable for every purpose, each unit fitted for the service required. Our trucks are built entirely in

our shops, and are built for every condition of load, from one to seven tons."

Meyers Lighting Post.

Unsightly contrivances are giving way to ornamental iron posts of excellent design and proportion surmounted by a clus-



MEYERS LIGHTING POST.

ter of lights. This is a great improvement over old devices.

Generally speaking, the value of property on a business street is directly proportionate to the number of people who make use of the street as a thoroughfare. It not infrequently happens that opposite sides of a street on the same block have considerable different values.

While public buildings, railway stations, hotels, etc., are a great factor in determining the traffic on a street, it is probably equally true that no other condition has such vital effect as the lighting.

Public lighting is a thing of so conspicuous and evident a nature that there is no escaping the benefits of same. Civic pride demands this improvement.

Of interest in this connection there is presented herewith a photographic view of a Meyers lighting post, one of the products of the Fred J. Meyers Manufacturing Co., Hamilton, O.

Appalachian Coal Operators.

The Appalachian Coal Operators' Association at its meeting at Knoxville last week elected Messrs. B. A. Morton, Knoxville, president; H. M. LaFollette, LaFollette, Tenn., vice-president; J. R. Woolridge, Woolridge, Tenn., second vice-president; Judge Moss, Pineville, Ky., third vice-president, and J. E. McCoy of Knoxville is secretary-treasurer.

Mr. J. B. Babb has been again elected secretary of the Chamber of Commerce of Birmingham, Ala.



BUILT BY MACK BROS. MOTOR CAR CO.

smallest size will work with as little as 10 horse-power, and the largest sizes will consume any amount of power the circular saw blades will stand up under.

Among the extras supplied for Lane circular-saw mills are direct-acting steam feeds having a steam-jacketed valve which is self-draining and so prevents all danger from freezing, and which is an economical

tained where full load each way can be handled with prompt loading and unloading facilities between two points. The nearer your situation approaches this ideal, the more profit in your installation.

"Our success is largely due to our ability to build trucks suitable for every purpose, each unit fitted for the service required. Our trucks are built entirely in

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and when this is necessary the statements are made as rumored or reported, and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Fla., Pensacola.—Pensacola, Mobile & New Orleans Railway Co., J. B. Hall, secretary, has petitioned Joint Rivers and Harbors Committee to approve site selected by company for movable steel span across Mobile River, with cypress piling for trestle; no bids asked. (Recently noted.)

Fla., St. Augustine.—City is considering construction of concrete bridge over San Sebastian River. Address Mayor Masters.

Ga., Lawrenceville.—Gwinnett County Road Commissioners awarded contract to Roanoke Bridge Co., Roanoke, Va., to construct steel bridge across Chattahoochee River at Rogers Ferry, near Duluth, Ga.

S. C., Conway.—Horry County Building Commission, C. P. Quattlebaum, chairman, awarded contract to Southern Bridge Co., Birmingham, Ala., at \$176 for construction of steel highway bridge over Waccamaw River; 150 feet center to center; two approaches of 90 feet. (Recently mentioned.)

Tex., Glen Rose.—Glen Rose & Walnut Springs Railway Co., J. H. Farr, president, Glen Rose, will build 400-foot bridge over Brazos river in connection with 60-mile line from Walnut Springs to Fort Worth, Tex.

Tex., Houston.—San Leon Terminal Railroad Co. will construct two cement culverts in connection with five miles of railroad to be built; C. S. Woods, Box 332, Houston, may be addressed. (See "Machinery Wanted.")

Tex., Lampasas.—Lampasas county will vote on issuance of bonds for construction of bridge across Lampasas river to cost about \$6000. Address County Commissioners. (Recently mentioned.)

Tex., Smithville.—City will vote on issuance of bonds for bridge construction. Address The Mayor.

Tex., Temple.—Chicago, Brazos & Wichita Valley R. R. awarded contract to J. W. Yarborough of Temple for bridge construction.

Tex., Wichita Falls.—Wichita county will vote on issuance of bonds for construction of wagon bridge across Wichita River to cost about \$15,000. Address County Commissioners.

Va., Richmond.—Richmond & Henrico Rail- way awarded contract to Virginia Bridge & Iron Co., Roanoke, Va., for steel work on viaduct to connect National Cemetery Rd. and Fulton; 12 45-foot, 1 60-foot, 14 25-foot and 6 40-foot spans; cost about \$150,000; plans by F. W. Scarborough of Richmond. (Recently mentioned.)

W. Va., Claysville.—Virginia Railway Co., H. Fernstrom, chief engineer, Norfolk, Va., will construct two steel bridges; concrete foundations; lengths and heights, 750x115 feet and 570x125 feet.

CANNING AND PACKING PLANTS

La., Algiers.—Biloxi Canning Co., Biloxi, Miss., will establish branch cannery; machinery purchased.

La., Crowley.—J. B. Foley does not contemplate present establishment of cannery; has growing fig orchard; when same is in proper bearing will erect cannery. (Recently noted.)

Va., Richmond.—Elam & Funsten represent parties who will erect \$20,000 building for Schwartzschild & Sulzberger Company, Chicago, Ill.

Va., Richmond.—Providence Forge Packing Corporation incorporated with \$10,000 capital stock; W. C. Mercer, president; C. W. Montgomery, vice-president; J. R. Sheppard, secretary-treasurer.

CLAYWORKING PLANTS

Ga., Athens.—Brick.—Georgia Brick Co. increased capital stock from \$2000 to \$20,000.

Tenn., Graysville.—W. H. Fox of Graysville, president of Dixie Clay Products Co., Chattanooga, Tenn., advises Manufacturers Record that plans are not matured for plant recently noted to be established at Graysville; will probably be ready for announcement within 60 days.

Tex., Houston.—Bricks.—McDade Brick Co. incorporated with \$40,000 capital stock by E. F. Brown, G. L. Teate, F. J. Spence and Ed. Allen.

W. Va., Grafton.—Sewer Pipes, Bricks, etc. Grafton Clay Products Co. incorporated with \$25,000 capital stock by C. T. Bartlett, H. McMurray, Clyde A. Cole and others.

COAL MINES AND COKE OVENS

Ky., Nortonville.—Nortonville Coal & Coke Co. will make improvements at coal mines.

Ky., Hopkins County.—French capitalists have purchased 40,000 acres coal land for \$400,000, and will develop; property sold by L. S. Jackman of Henderson, Ky., J. T. Edwards of Providence, Ky., William Lynch of Dawson Springs, Ky., and L. B. Henry of Dixon, Ky.

Mo., St. Louis.—Pioneer Coal & Coke Co., N. P. Withington, president (recently reported incorporated with \$10,000 capital stock), is selling agency.

Tenn., Knoxville.—Darby Coal Mining Co. incorporated with \$50,000 capital stock by C. H. Thompson, E. G. Oates, J. R. McDowell and others.

Tex., Jefferson.—Dallas Coal, Iron & Steel Co. will construct coke ovens; W. F. McClurg in charge at Jefferson; general offices at Dallas, Tex. (See "Iron and Steel Plants.")

CONCRETE AND CEMENT PLANTS

Ala., Oneonta.—Blount County Concrete Block & Sewer Pipe Co., John F. Kelton, president, will manufacture concrete building material, sewer and culvert pipe; capacity at start, 200 blocks daily. (Recently noted.)

Okla., Tulsa.—Tulsa Portland Cement Co. incorporated with \$300,000 capital stock to build plant by L. F. Barnes and associates; offices in Robinson Hotel Block. (Mr. Barnes previously reported interested in plant.)

COTTON COMPRESSES AND GINS

Ark., Earle.—Boone Gin Co. incorporated with \$7000 capital stock.

Miss., Olive Branch.—Brown & Brooks Gin incorporated with \$10,000 capital stock by J. N. Brown, H. W. Brooks, S. R. Drake and others.

N. C., Faith.—W. H. Cauble will erect cotton gin and mill building.

N. C., Liberty.—Liberty Chair Co., James H. Johnson, president and manager, wants architects to submit plans for 60 or 70-saw cotton gin. (See "Machinery Wanted.")

N. C., Weldon.—Daniels Gin & Lumber Co. incorporated with \$50,000 capital stock by S. A. Lawrence, C. E. Vale and others.

Okla., Wanette.—Wanette Farmers' Gin & Storage Co. increased capital stock from \$8000 to \$15,000.

Tex., Bishop.—Bishop Cotton Gin Co. organized with Dale Walker president and treasurer; will establish cotton gin; daily capacity, 45 bales of cotton; cost \$9000.

Tex., Clarksville.—Clarksville Cotton Oil Co. will, it is reported, erect cotton gin.

Tex., Stowell.—C. A. Elmen & Co. of Houston, Tex., will establish cotton gin.

COTTONSEED-OIL MILLS

Ark., Arkadelphia.—United Oil Mill Co. will erect cotton-oil mill; brick and reinforced concrete; cost \$85,000.

Okla., Calvin.—Choctaw Cotton Oil Co., Shawnee, Okla., will erect four-press cottonseed-oil mill at Calvin.

Tex., Dallas.—Trinity Cotton Oil Co. is having plans prepared for seedhouse to replace burned structure; concrete and steel; 100x400 feet; cost \$40,000 to \$50,000. (Previously noted.)

DRAINAGE AND IRRIGATION

Miss., Cleveland.—Board of Drainage Commissioners of Bolivar county awarded contract to R. H. and G. A. McWilliams of Cleveland at 10.99 cents per yard for excavation of following drainage canals: Holmes Lake, 7.2 miles; Snake Creek, 21 miles; Mound Bayou, 8.7 miles; Jones Bayou Cut-off, .8 mile; Goose Lake Cut-off, 1.7 miles; probable cost, \$95,000; W. W. Boone, chief engineer Northern Drainage District; L. H. Gaines, member of commission. (See "Machinery Wanted.")

Miss., Natchez.—Homochitto Swamp Land Commission of Adams county contemplates dredging canal from Gaillard Lake to Mississippi River, which is to drain Homochitto River, and reclaim 30,000 acres of land.

Tex., San Antonio.—Asherton Artesian Land & Irrigation Co. incorporated with \$600,000 capital stock by Asher Richardson, Littleton Richardson, M. H. Burt and H. Mackey.

Okla., Mountain View.—R. E. Jones contemplates erecting reservoir at foot of Rainy Mountain and irrigating several hundred acres of land along Washita River Valley; estimated cost, \$10,000.

Tenn., Memphis.—D. S. Rice and I. F. Peters of Memphis and W. A. Johnson, Elendale, Tenn., purchased 7500 acres of rice land in Arkansas county for \$300,000; will erect \$35,000 pumping station on Cologne Bay, tributary to White River; station is to be equipped with 600-horse-power engine and pump, capacity of which will be 25,000,000 gallons of water daily; proposed in addition to supplying irrigation for tract purchased to also furnish irrigation to other rice growers; capacity of station is sufficient to irrigate 16,000 acres; ultimately it is planned to construct rice mill.

ELECTRIC LIGHT AND POWER

Ala., Bay Minette.—Hampton D. Ewing (of Bay Minette Land Co.) and W. H. Issell, Bowling Green, Ky., are promoting construction of electric-light plant to cost about \$20,000.

Ala., Eufaula.—Eufaula Gas, Electric Light & Power Co., Louis S. Frith, president, engaged W. L. Upton, consulting engineer, Birmingham, Ala., to estimate cost of constructing electric-light system; recently noted; will erect 50x75-foot brick building. (See "Machinery Wanted.")

Ark., Monticello.—City will rebuild electric-light plant recently reported burned; bids will be received until March 15 for equipment, consisting of 72x16-inch return-tubular boilers, 75 and 100-kilowatt direct-connected alternating generators, with switchboards, wiring, boiler-feed pumps, feed-water heater and other appurtenances.

Ark., Earle.—Boone Gin Co. incorporated with \$7000 capital stock.

to complete electric plant, less building; N. C. Roe, chairman Commissioners. (See "Machinery Wanted.")

Fla., St. Petersburg.—City is considering bond issue for construction of electric-light plant recently noted; W. F. Divine, clerk.

Ga., Doerun.—City voted issuance of \$15,000 of bonds for construction of electric-light plant and erection of school. Address The Mayor.

Ky., Nortonville.—Nortonville Coal & Coke Co. will erect power-house and furnish city with electric lights.

Md., Sykesville.—Managers of Springfield State Hospital for the Insane approved plans and specifications for power-house and two additional cottages; latter will accommodate about 200 persons. Dr. J. Clement Clark, superintendent.

Md., Baltimore.—Consolidated Gas, Electric Light & Power Co., Continental Bldg., has completed plans for battery-house to be erected adjoining substation on McClellan Al. between Fayette and Baltimore Sts.; building will cost \$50,000 and storage-battery plant \$250,000, making total expenditure of \$300,000, exclusive of cost of site. (Recently mentioned.)

Miss., Tylertown.—City is considering construction of electric-light plant; Xavier A. Kramer, Magnolia, Miss., submitted proposition. Address The Mayor.

N. C., Burlington.—Alamance Power Co. has organized with main office at Graham, N. C.; president and treasurer, F. L. Williamson of Burlington; vice-president, J. Harvey White of Graham; secretary, Chas. E. Menefee of Graham; plans construction of water-power-electrical plant on Haw river. (Recently reported incorporated with \$300,000 capital stock.)

Okla., Durant.—City will construct electric-light plant; City Council voted to adopt plans and specifications, and instructed City Clerk to advertise for bids. Address The Mayor.

Okla., Skiatook.—Osage-Cherokee Corporation incorporated with \$100,000 capital stock by C. H. Cleveland and others. (See "Water works.")

Okla., Waukomis.—City granted electric-light franchise to Waukomis Electric Light Co.

Okla., Waukomis.—Waukomis Electric Light & Power Co. will establish electric-light plant; install direct-connected generator, 125 or 250 volts, 40 kilowatts; A. Williamson recently noted interested. (See "Machinery Wanted.")

S. C., Rock Hill.—City has acquired property of Martin Maloney of Philadelphia, Pa., consisting of electric-light plant, water-works and franchises, for \$100,000. Address The Mayor. (Recently mentioned.)

Tenn., Big Sandy.—City will construct electric-light plant. Address The Mayor.

Tex., El Paso.—El Paso Electric Street Railroad Co. will erect addition to power plant; steel; 65 feet high, 49 feet long and 23 feet wide; cost \$10,000; install machinery to double present capacity.

Tex., Miles.—S. M. Farmer and associates will rebuild burned electric-light plant.

Tex., San Antonio.—San Antonio Electric Co. will expend \$50,000 for improvements in electric department and \$35,000 for reconstruction and remodeling of Villita-St. power-plant.

Tex., Texas City.—Texas City Electric Light & Power Co. incorporated with \$100,000 capital stock by R. C. Trube, F. M. Danforth and William Dossett.

Tex., Waco.—City voted issuance of \$250,000 of bonds for construction of electric-light plant; H. B. Mistret, Mayor. (Recently mentioned.)

W. Va., Bungers.—S. S. Tuckwiller, Lewisburg, W. Va., will establish plant recently noted; isolated plant to develop 12 kilowatts for from two to five miles light and power transmission to farmers and stockmen in vicinity; concrete dam 100 feet long, 4 feet high; 400-foot conduit; 300 feet 10-inch hydraulic pipe; water motor, 25 horse-power capacity; construction by local parties; materials to be purchased; owner, engineer. (See "Machinery Wanted.")

W. Va., Logan.—Logan Electric Co. incorporated with \$25,000 capital stock by W. F. Beville, Charles Bennett, S. M. Bisant and others.

FERTILIZER FACTORIES

Ga., Athens.—Empire State Chemical Co. telegraphs Manufacturers Record will rebuild main shipping building (reported burned) as soon as debris can be cleared, probably 60 days; loss on building and machinery about \$100,000; sulphuric acid chambers, niter-house, machine shops, boiler-house and engine-room uninjured; destroyed building was on Georgia Railroad tracks; new shipping building on Southern & Seaboard Air Line is intact and equipped.

Ga., Toccoa.—Dance Guano Co. (recently reported incorporated with \$10,000 capital stock by C. H. Dance, Rush Herndon and Zack Martin) will succeed C. H. Dance and continue established business.

Va., Lewisetta.—Coan River Guano Co. incorporated with \$50,000 capital stock; A. B. Garner, president; H. B. Chambers, vice-president; M. T. Garner, secretary-treasurer.

FLOUR, FEED AND MEAL MILLS

Ala., Bessemer.—John F. Glover of Atlanta, Ala., will establish grist mill at Fourth Ave. and 20th St.; machinery purchased.

S. C., Woodruff.—Woodruff Roller Mills, C. S. Jones, manager, will rebuild roller mill reported burned; 80-barrel capacity; will also install grist mill and five-ton ice plant; operated by electric-power. (See "Machinery Wanted.")

FOUNDRY AND MACHINE PLANTS

Ala., Bessemer.—Bessemer Casting Co. incorporated with \$2500 capital stock by J. A. Neal, B. G. Perry and G. G. Neal.

Ky., Louisville.—Bottling Machinery.—Frederick-Ruggles Manufacturing Co. incorporated with \$6000 capital stock by George W. Ruggles, J. M. Frederick, John F. Oertel and others.

Md., Baltimore.—Gas Stoves, etc.—Consolidated Gas, Electric Light & Power Co., Liberty and Lexington Sts., awarded contract to Fidelity Construction Co., 64 Knickerbocker Bldg., Baltimore, for addition to building at Bayard and Nanticoke Sts.; two stories; brick and stone; cost \$6000; building to be used by Baltimore Gas Appliance Co. (Recently detailed.)

Mo., St. Louis.—Structural Steel Works.—Steel Roof Truss Co. will establish plant for manufacturing fabricated steel; secured about four acres as site.

Okla., Guthrie—Bridges, etc.—Oklahoma Bridge & Culvert Co. Incorporated with \$20,000 capital stock to establish plant; Bart Murphy, president; Edward B. Henry, secretary.

Va.-Tenn., Bristol—Iron Works.—Dominion Iron Works increased capital stock from \$50,000 to \$100,000.

GAS AND OIL DEVELOPMENTS

Miss., Laine.—Laine Oil Co. is being organized with R. P. Linfield, chairman; H. Herring, secretary, and F. Lewis, treasurer; to develop oil deposits.

Okla., Durant.—1911 Oil & Gas Co. incorporated with \$20,000 capital stock by J. B. Smith, M. L. Roberts, L. F. Lee and others.

Okla., Atoka.—Atoka Oil & Gas Co. incorporated with \$20,000 capital stock by J. E. Davis, J. S. A. Arams, A. R. Faucher and others.

Okla., Claremore.—Home Full of Gas Co. has gas franchise.

Tex., Humble.—Humble Oil Co. incorporated with \$150,000 capital stock by S. K. Warrener, G. S. Wood and M. C. Hale.

Tex., Houston.—Clarion Oil Co. Incorporated with \$5000 capital stock by J. C. Kallip, W. T. Kallip and John Hamman.

Tex., Longview.—Longview Oil Co. organized with W. D. Sessum president, C. F. Miles vice-president and general manager, J. H. Hurst secretary, E. A. Morgan treasurer; will develop oil and gas deposits two miles from Longview. (Recently reported incorporated with \$13,000 capital stock.)

Tex., Stonewall county.—Stonewall Oil, Mining & Development Co., Knox City, Tex., incorporated with \$20,000 capital stock; will continue oil-drilling operations and mining in Stonewall county; J. A. Copeland, president; W. M. Sandifer, secretary-treasurer. (Recently incorrectly noted under "Cottonseed Oil Mills.")

W. Va., Clarksburg.—Mascot Oil & Gas Co., 602 Golf Bldg., has commenced drilling and has several additional leases; Edward Thompson, president; H. A. Heinze, secretary-treasurer. (Recently reported incorporated with \$22,000 capital stock.)

W. Va., Grafton.—Excelsior Oil & Gas Co. incorporated with \$10,000 capital stock by

Charles R. Durbin, P. H. McGrady, Earl B. Jenkins and others.

W. Va., Grantsville.—Keeney Land & Oil Co. incorporated with \$50,000 capital stock by A. E. Keeney of Grantsville, Amos Keeney of Spencerville, W. Va.; John J. Nash of Huntington, W. Va., and others.

W. Va., Parkersburg.—Silver Run Oil Co. incorporated with \$32,000 capital stock by C. W. McCormick, S. F. Crane and others.

ICE AND COLD-STORAGE PLANTS

Ark., Fort Smith.—Fort Smith Ice & Cold Storage Co. will rebuild portion of burned plant; brick and stone; will install various improvements, expending \$10,000 to \$12,000.

Mo., Thomasville.—Thomasville Ice Manufacturing Co., it is reported, will enlarge plant and install new machinery; cost \$15,000.

La., Garyville.—Home Ice & Manufacturing Co. has purchased Garyville Ice Manufacturing Co.'s plant; capacity 20 tons; no machinery needed; E. E. Hanmer, president; C. F. Hitchings, vice-president; S. J. Drapkin, secretary-treasurer. (Recently noted incorporated under New Orleans, La., with \$24,000 capital stock.)

La., New Orleans.—Fred Miller Brewing Co. of Milwaukee, Wis., will establish cold-storage plant; cost \$50,000 to \$60,000; Geo. Thoele, local representative.

Mo., Kansas City.—Sheffield Ice Co. incorporated with \$20,000 capital stock by D. D. Duton, Sloan Turgeon and Hugh E. Martin.

Mo., Warrenton.—Warrenton Electric Light, Ice & Power Plant will establish five-ton ice plant and erect fireproof building; H. C. Boettger, engineer in charge. (Recently noted.)

Okla., Ryan.—A. R. Manton, S. P. Treadwell and J. M. Thomas leased site and municipal power for five years, and will establish ice plant with daily capacity of 10 tons.

Okla., Ryan.—Ryan Ice & Cold Storage Co. has plants by J. M. Thomas, Ryan, for 40x65-foot ice and cold-storage plant; concrete foundation and floors; construction by company; cost of machinery (purchased) \$6000. (J. M. Thomas and others recently noted interested.)

S. C., Woodruff.—Woodruff Roller Mills, C. S. Jones, manager, will install five-ton ice plant in connection with flour mill. (See "Flour, Feed and Meal Mills" and "Machinery Wanted.")

Tenn., Humboldt.—Foltz Mfg. Co. will construct foundation for installation of machinery to double capacity of plant.

Tex., Alvin.—Alvin Ice & Refrigerator Co., H. P. Rhodes, president, organized with \$15,000 capital stock to establish ice plant; awarded contract to M. L. Bolter, Alvin, for erection of 30x70-foot building; corrugated iron; cost \$1250; cost of machinery (purchased), \$12,000; daily capacity, 15 tons of ice.

Tenn., Sapulpa.—Dewey Park Realty Co. incorporated with \$5000 capital stock by J. E. Rice, J. F. Fuller, B. B. Burnett and others.

S. C., Anderson.—College Heights Land Co., R. S. Ligon, president, incorporated with \$60,000 capital stock, is organized only to dispose of college lands. (Recently noted.)

S. C., Rock Hill.—Suburban Development Co. incorporated with \$15,000 capital stock by G. Friedheim, C. L. Cobb and C. W. F. Spencer.

Tenn., Chattanooga.—Chattanooga Estates Co. has acquired properties of Chattanooga Company, Ltd., including 8000 acres land for development as residence and factory sites; land includes Normal Park and Riverview (suburban additions) and 12 miles of river front; land in Hamilton county across Tennessee River from Chattanooga; capital stock, \$6,000,000; C. E. James of Chattanooga is president; directors include Mr. James and N. F. Brady, C. I. Strale and Harry Bronner of Hallgarten & Co.; James Imbrie of Morris, Imbrie & Co.; Littleton Fox, H. A. Kohler of O'Connor & Kohler and Chas. B. Eddy, all of New York; company's main offices in James Bldg., Chattanooga. (Outline of organization and plan reported in January.)

IRON AND STEEL PLANTS

Tex., Jefferson.—Iron Furnace and Steel Plant.—Dallas Coal, Iron & Steel Co. will modernize iron furnace and build open-hearth basic steel plant of 200 tons daily capacity; will also construct coke ovens; W. F. McClurg in charge at Jefferson; general offices at Dallas, Tex. (Organization details, general improvement plans, etc., reported in January.)

LAND DEVELOPMENTS

Ala., Gadsden.—Mineral District Land Co. incorporated with \$7500 capital stock by H. H. Patterson (president), C. C. Huxford, both of Atmore, Ala., and Henry F. Wylie of Gadsden.

Ala., Montgomery.—Southern Land & Investment Co., G. G. Miles, president, will develop cut-over timber lands for farming section. (Recently reported incorporated with \$50,000 capital stock.)

Ala., Robertsdale.—South Shore Leaf Tobacco Farms Co. incorporated with \$25,000 capital stock by S. B. Rowles, E. C. Thompson, F. G. Brunner and others.

Fla., Sarasota.—Owen Burns purchased tract of land; will develop portion for residence section, other portion for amusement resort, etc. (See "Miscellaneous Construction.")

Fla., St. Petersburg.—Snell & Hamlett will make improvements at Coffey Pot Bayou;

subdivide into building sites, construct hard-surface boulevard, install water and sewer systems, dredge channel, erect hotel, construct cement sidewalks, establish golf course, parks, etc., and construct electrical railway from Seventh Ave. North and 2d St. to the property.

Mo., Macon.—Southern Land Co. incorporated with \$10,000 capital stock by H. A. Bankston, R. L. Permenter and Roy C. Hicks.

Ga., Savannah.—Navigation.—Forest City Navigation Co. incorporated with \$50,000 capital stock by Jos. F. O'Brien, John J. Rauers, John F. Paulsen and others.

Ky., Louisville.—Century Realty Co. incorporated with \$100,000 capital stock by E. D. Foree, A. C. Benerman, G. L. Everbach and others.

La., New Orleans.—Catherine Planting & Manufacturing Co. incorporated with \$100,000 capital stock; C. S. Matthews, president; E. F. Dickinson, vice-president and treasurer; Oscar Bourg, secretary.

La., Georgetown.—Georgetown Development Co., general offices, 308 Colcord Bldg., Oklahoma City, Okla.; paid-up capital stock, \$20,500; Guy H. Fuller, president; W. S. Rouse, secretary; Louis E. Strauss, treasurer; has laid out townsite and is selling same with adjacent acreage for truck farming. (Previously noted to purchase 5300 acres of land in Grant and Winn parishes.)

Miss., Yazoo City.—Yazoo City Development Co. will develop between 1000 and 1100 acres of land along Yazoo River as manufacturing sites; company not organized. (Recently reported incorporated with \$40,000 capital stock by T. H. Campbell, Robert Heeter and others.)

Mo., Joplin.—Sarcosie Land & Development Co. incorporated with \$600 capital stock by W. T. Patterson, H. H. Bean, J. D. Roper and others.

Mo., Wallace.—Wallace Improvement Co. incorporated with \$300 capital stock by W. H. Shapter, C. C. Murphy and others.

N. C., Charlotte.—George Stephens, J. S. Myers and associates are reported as contemplating development of Myers Park for residence suburb, involving eventually 1100 acres; John Nolen, 1382 Harvard Sq., Cambridge, Mass., will be landscape architect in charge.

N. C., West Durham.—C. A. Adams, C. A. Craibtree and C. G. Gurley purchased 25 acres of land for \$15,000; will subdivide, construct streets, etc., and develop for residence section.

Okla., Sapulpa.—Dewey Park Realty Co. incorporated with \$5000 capital stock by J. E. Rice, J. F. Fuller, B. B. Burnett and others.

S. C., Anderson.—College Heights Land Co., R. S. Ligon, president, incorporated with \$60,000 capital stock, is organized only to dispose of college lands. (Recently noted.)

S. C., Rock Hill.—Suburban Development Co. incorporated with \$15,000 capital stock by G. Friedheim, C. L. Cobb and C. W. F. Spencer.

Tenn., Chattanooga.—Chattanooga Estates Co. has acquired properties of Chattanooga Company, Ltd., including 8000 acres land for development as residence and factory sites; land includes Normal Park and Riverview (suburban additions) and 12 miles of river front; land in Hamilton county across Tennessee River from Chattanooga; capital stock, \$6,000,000; C. E. James of Chattanooga is president; directors include Mr. James and N. F. Brady, C. I. Strale and Harry Bronner of Hallgarten & Co.; James Imbrie of Morris, Imbrie & Co.; Littleton Fox, H. A. Kohler of O'Connor & Kohler and Chas. B. Eddy, all of New York; company's main offices in James Bldg., Chattanooga. (Outline of organization and plan reported in January.)

Tenn., Memphis.—McLaughlin Land Co. purchased 22 acres of land east of Cooper street and south of Central avenue for \$50,000; will subdivide into building sites and develop.

Tenn., Memphis.—McLaughlin Land Co. purchased 22 acres of land for \$50,000 and will develop subdivision; will subdivide into 50-foot lots, etc.

Tenn., South Pittsburg.—W. F. Arendale and H. L. Kirkpatrick have purchased 35 acres of land adjoining Richard City, Tenn., to be known as Hardies Addition; purchased in January.

Tenn., Memphis.—McLaughlin Land Co. purchased 22 acres of land for \$50,000 and will develop subdivision; will subdivide into 50-foot lots, etc.

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N. C., Goldsboro.—Enterprise Lumber Co. of Goldsboro and Mt. Olive, N. C., purchased from Cape Fear Lumber Co. timber amounting to \$110,000. (Recently incorrectly noted.)

N. C., Goldsboro.—Whiteville Lumber Co. of Whiteville, N. C., and Goldsboro purchased from Gardner-Lacy Lumber Co. timber amounting to \$150,000.

N. C., Hendersonville.—Rigby-Morrow Company incorporated with \$50,000 capital stock by J. C. Morrow, J. A. Fletcher and L. T. Dernard.

N. C., Robbinsville.—Whiting Manufacturing Co., Land Title Bldg., Philadelphia, Pa., and Legal Bldg., Asheville, N. C., will, it is reported, build sawmill to have daily capacity of 125,000 feet. (Company controls 90,000 acres of timber land in Graham county and was previously stated to have purchased county seat of Robbinsville, etc.)

N. C., Yancey county.—W. J. Brown and associates of Punxsutawney, Pa., purchased for \$300,000 about 13,000 acres timber land in Yancey county; poplar, oak, basswood, cherry, ash, chestnut, spruce and hemlock; will erect double 8-foot mill.

N. C., Weldon.—Daniels Gin & Lumber Co. incorporated with \$50,000 capital stock by S. A. Lawrence and others.

Okl., Oklahoma City.—Hub City Lumber Co. incorporated with \$20,000 capital stock by R. F. Brown, G. H. Elliott and J. M. Bevenett.

S. C., Anderson.—Martin-Vandiver Lumber Co. incorporated with \$25,000 capital stock by T. F. Martin, E. P. Vandiver and J. R. Vandiver; will continue established (firma) business.

S. C., Charleston.—Hacker Mfg. Co. purchased lumber plant from Conrad Ehrhardt Lumber Co. of Ehrhardt, S. C., and timber property, comprising about 25,000,000 feet of yellow pine timber; six-mile railroad is being constructed; authorized capital stock has been increased to \$125,000.

S. C., Hartsville.—Enterprise Lumber Co. incorporated with \$25,000 capital stock; C. M. McKinnon, president; R. E. Barksdale, vice-president; H. T. Hopkins, secretary-treasurer.

S. C., Swansea.—M. J. Rucker will rebuild saw and shingle mill recently reported burned.

Tenn., Henry.—A. Sayer purchased timber land and will establish sawmill.

Tenn., Memphis.—Eagle Lumber Co. incorporated with \$20,000 capital stock by S. E. Ragland, C. B. Snowden, W. T. Hudson, S. R. Martin and E. C. Cochran.

Tenn., Memphis.—Sharky Land & Timber Co. incorporated with \$20,000 capital stock by E. B. McHenry, John G. Jones, C. H. Miller, irons and others.

Tex., Dallas.—Eureka Lumber Co. incorporated with \$15,000 capital stock by John McMurry, A. C. Morgan and T. A. Hilburn.

Tex., Granbury.—Granbury Lumber Co. incorporated with \$5000 capital stock by C. B. Granbury, Ross Harrison and W. A. McKennon.

Tex., Liberty Hill.—Liberty Hill Lumber Co. incorporated with \$10,000 capital stock by J. H. Comer, L. W. Kent and J. C. Landrum.

Tex., Webster.—Webster Lumber Co. incorporated with \$10,000 capital stock by R. M. Farrar, N. E. Meader and J. S. Kendall.

Va., Harrisonburg.—A. M. Turner of A. M. Turner & Co., Broadway, Va., purchased 1300 acres of timber land for development.

W. Va., Cheat River (not a postoffice)—Swartzwelder & Co., Albright, W. Va., are proceeding with development of 320 acres of timber land in Preston county; awarded contract to B. W. Outow of Albright, who has installed equipment; capacity 10,000 to 12,000 feet of timber per day. (See "Machinery Wanted.")

MINING

Ga., Blairville—Gold.—J. C. Williams and associates are installing machinery for development of gold deposits.

Mo., Joplin—Lead and Zinc.—Haley Mining Co. incorporated with \$5000 capital stock by J. F. Haley, Monroe P. Welton and others.

Mo., Joplin—Lead and Zinc.—Haley Mining Co. incorporated with \$5000 capital stock by J. F. Haley, M. P. Welton, Solomon Ross and others.

Mo., Joplin—Lead and Zinc.—Open Cut Mining Co. incorporated with \$2000 capital stock by C. C. Tharp, A. R. Stewart and A. G. Young.

Mo., St. Louis—Iron.—Cane Creek Iron Ore Co. incorporated with \$1,000,000 capital stock by Frank H. Mitchell and Geo. L. McBride of St. Louis; D. W. Thompson of Randolph,

Ill.; J. J. Love of Bloomington, Ill., and G. W. Wilson of Onalaska, Wis.

Mo., Webb City—Lead and Zinc.—East Side Mining Co. incorporated with \$2000 capital stock by Frank C. Thompson, A. Greathouse, M. Spradling and others.

Okl., Davis—Lead and Zinc.—Arbuckle Mining & Milling Co. purchased and will install 150-ton concentrating mill.

Okl., Okene—Salt.—Midland Salt Co. incorporated with \$200,000 capital stock by C. C. Pottenger, F. H. Foster and J. M. Remington, all of Oklahoma City, Okla.; will erect plant 150x700 feet; brick and wood; cost \$125,000; will pump brine from wells, convey to plant and evaporate; will establish second plant in western part of Oklahoma later; Oklahoma City offices in Colecord Bldg.

Okl., Ravin.—Ravin Mining & Milling Co. organized with \$100,000 capital stock; E. W. Rose, president, Dallas, Tex.; J. E. Harris, first vice-president, Dallas; T. A. Hood, second vice-president, Dallas; R. T. Wilson, treasurer, Ravin; A. M. White, secretary, Dallas; will develop 1500 acres mineral lands.

Okl., Ravin—Condensing Plant.—Texas Zinc & Milling Co., H. Clogson, president, is reported to install condensing plant.

Tenn., Columbia—Phosphate.—Consolidated Phosphate Co. will at early date complete organization; will take over several properties previously owned by parties going into this company; about 400 phosphate acreage. (Recently noted incorporated with \$700,000 capital stock by John W. Fry, Geo. W. Killibrew, E. Dan Smith and others.)

MISCELLANEOUS CONSTRUCTION

Ark., Pine Bluff—Levee.—James Gould of Pine Bluff and A. M. Morrow, El Dorado, Ark., will award contracts for construction of 600,000 yards levee work. (See "Machinery Wanted.")

Ark., Van Buren—Levee.—Levee Commissioners' Crawford County Levee District, E. L. Matlock, secretary, has disposed of \$175,000 bond issue and expect to award contracts soon for construction of proposed levee.

Fla., Sarasota—Dock, etc.—Owen Burns and associates will erect dock costing \$5000 for commercial and pleasure purposes; also skating rink and amusement hall over water, with booths on either side of dock; whole will be lighted with electricity; improvements are to be made on Cedar Point property by deepening bay and filling in low land with sand dredged from bay; tract will be divided into lots and developed for residential purposes.

Fla., Savannah—Slip.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., will extend western slip 600 feet; present length 1100 feet; cost about \$25,000.

La., Alexandria.—State Board of Engineers, New Orleans, La., awarded contract to J. R. Bobbitt at 14½ cents per cubic yard for construction of levee on Bayou Rapides, requiring about 60,000 cubic yards of construction; also to Charles Martin at 13.72 cents per cubic yard for construction of Hatch levee on Red River, comprising about 13,000 cubic yards.

Md., Baltimore—Pier.—Maryland, Delaware & Virginia Railway, W. Thomson, general manager, will make improvements to Light street piers; Pier 8 will be rebuilt; general offices, Pier 1, Pratt-street wharf.

Okl., Oklahoma City—Concrete Fence.—Fairlawn Cemetery Association awarded contract to Raymond & Croak of Oklahoma City to construct fence around Fairlawn Cemetery; five feet high; two iron and concrete gateways; total length 5000 feet; cost \$16,000; plans by Moore & McClure of Oklahoma City. (Invitation for bids noted lately.)

Okl., Tulsa—Dam.—Sand Springs Interurban Railway, Charles Page, owner, will construct dam and form lake; dirt wall to be built between two bluffs and be 40 feet high; base of dam to be about 100 feet wide and slope gradually to top from outside; extreme depth to be 30 to 35 feet; water to cover 25 to 30 acres; J. M. Gowan of Tulsa has contract for construction.

Tex., Port Arthur—Pier.—Port Arthur Pleasure Co., John W. Tryon, president (not John W. Fryor, as recently erroneously noted) will build pleasure pier.

Tex., Port Bolivar—Port Improvements.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., contemplates construction of additional port facilities for lumber shippers; plans to construct skidways and unloading platforms about 1200 feet long and 30 feet wide, so built as to permit widening to 60 feet; also rearrangement of trackage on lumber slip, erection of new fireproof lumber sheds if

necessary and additional dredging of new slip to depth of about nine feet; material dredged is to be pumped back of creosoted bulkheads; R. A. Rutledge has prepared preliminary blueprints; railway company is also preparing plans for ore dock, and may construct separate ore slip; reports state an expenditure of \$1,000,000 is contemplated for this and other betterment work.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Electrical Equipment.—Walker-Middlebrooks Company incorporated with \$15,000 capital stock; J. M. Middlebrooks, president and general manager; W. M. Mayes, vice-president; J. B. Danforth, secretary-treasurer.

Ala., Mobile.—Joseph Zimmerman Company has plans by Stone Bros., 201 Pollock Bldg., Mobile, and New Orleans, La., for grain elevator; 53x92 feet; mill construction; cost \$15,000; will open bids March 1.

Ark., Jonesboro—Grain Elevator.—Jonesboro Roller Mill Co. will erect 50,000-bushel grain elevator; steel and concrete.

Fla., Tallahassee—Live Stock.—Williams Live Stock Co. incorporated with \$20,000 capital stock; J. P. Williams, president; Charles R. McLaurin, vice-president and general manager; W. J. Williams, secretary-treasurer; will enclose about 12,000 acres of land with wire fencing.

Fla., Tampa—Machinery, etc.—Ulmer Machinery Co., M. W. Ulmer, president, awarded contract to Mr. Frisbee, Tampa, for erection of \$3000 building; mill construction; plans by A. L. Shaw, Tampa; will sell machinery. (See "Machinery Wanted.")

Ga., Cave Spring—Laundry.—Georgia School for Deaf Mutes will erect laundry; 40x60 feet; brick; metal roof; gas and electric lighting; plans by J. G. Barnwell and Clarence T. Jones, Chattanooga, Tenn.; bids opened.

Ga., Gainesville—Automobiles.—Queen City Motor Co. incorporated with \$5000 capital stock by W. A. Roper, J. H. Downey and B. H. Morton.

Ga., Savannah—Automobiles.—Savannah Electric Garage & Tire Co. incorporated with \$25,000 capital stock; C. W. Breedlove, president, Norfolk; E. D. Craig, vice-president, Savannah, Ga.; L. F. Feuerstein, secretary-treasurer, Norfolk; has leased building, and will conduct automobile repair shop; no further equipment needed.

Ga., Savannah—Auto Livery.—Sawyer Auto Livery Co. incorporated with authorized capital stock of \$30,000 by Clinton H. Sawyer, Charles Wakeman and W. Swoll Sawyer.

Ky., Hazard—Publishing.—Mountain Publishing Co. incorporated with \$2500 capital stock by E. P. Blair, Will Roberts and G. W. Humphries.

Ky., Louisville—Plumbing.—J. F. Leanhardt & Sons incorporated with \$5000 capital stock by J. F. Leanhardt, J. G. N. Leanhardt, J. A. Leanhardt and W. E. Leanhardt.

Ky., Richmond—Automobiles.—Citizens Motor Car Co. incorporated by W. C. Bennett, Fletcher West and J. H. Dean.

La., Baton Rouge—Resort.—Greenwall Co. purchased Greenwall Springs and 300 acres of land for \$24,000; will revive for summer resort and erect theater.

La., New Orleans—Brewery.—Schoenhoffen Brewing Co., Chicago, Ill., will, it is reported, establish branch plant and cold-storage department; cost \$40,000.

La., New Orleans—Plumbing.—O'Brien McDonagh, Ltd., incorporated with \$10,000 capital stock; Peter O'Brien, president; Thos. McDonagh, vice-president; A. Williams, secretary-treasurer.

La., New Orleans—Transportation.—Southern Transportation Co. incorporated with \$15,000 capital stock; Marc H. Bailey, president; John R. Perez, vice-president; Andrew B. Booth, Jr., secretary-treasurer.

Md., Baltimore—Laundry.—Ensor Laundry Co., 314 N. Exeter St., awarded contract to J. Matthews, 312 N. Exeter St., Baltimore, for erection of laundry building at 314 N. High St.; 53x57 feet; brick and stone; two stories; electric elevator; steam heat; cost \$10,000; plans by Baldwin & Pennington, Professional Bldg., Baltimore. (Mrs. Kate McKenna recently noted as having plans prepared for this building.)

Md., Baltimore—Construction.—Welsh Construction Co. incorporated with \$5000 capital stock by John Welsh, 2024 W. Saratoga St.; C. Hightman and Louis Krager.

Md., Baltimore—Laundry.—Ensor Laundry Co., 314 High St., awarded contract to Mr. Matthews, 314 High St., Baltimore, for erection of laundry; 53x57 feet; semi-fireproof construction; freight elevator; cost \$10,000;

plans by Baldwin & Pennington, 320 N. Charles St., Baltimore. (Recently noted.)

Md., Baltimore—Moving picture Equipment, etc.—Royal Amusement Co. incorporated with \$2000 capital stock by August W. Schnepte, Blue Mouse Bldg., 28 W. Lexington St.; Geo. F. Green, 204 E. Lombard St., and Thos. B. Alexander, 2021 E. Lombard St.

Md., Love Point.—Love Point Beach & Park Co. incorporated with \$60,000 capital stock by James T. Bright, Walter T. Wright, William J. Price, Sr., and others, all of Centerville, Md.; purchased casino, beach, pier and farm property at Love Point and will develop as amusement resort.

Miss., Meridian—Hardware.—Greenwald Hardware Co. incorporated with \$10,000 capital stock by Morris Gilston of Martin, Miss., and others.

Miss., Vicksburg—Steamboat Line.—Eagle Lake Co. incorporated with \$30,000 capital stock to operate steamers on Mississippi and Yazoo rivers.

Mo., Carthage—Carriage & Auto Co., 5th and Grant Sts., will erect \$20,000 fireproof building; E. R. Lamphier, president and manager; N. E. Lamphier, secretary-treasurer; will repair carriages and wagons; no machinery needed. (Recently reported incorporated with \$15,000 capital stock.)

Mo., Columbia—Publishing.—Hirth Publishing Co. incorporated with \$20,000 capital stock by William Hirth, R. C. Clark and others.

Mo., Joplin—Supplies.—Kentucky Supply Co. incorporated with \$2000 capital stock by Logan Billingsby, S. C. Claymore and A. M. Spinner.

Mo., Kansas City—Engraving.—Teachenor-Bartberger Engraving Co. incorporated with R. B. Teachnor, E. C. Bartberger, L. E. Holland and others.

Mo., Kansas City—Cement, Brick and Stone.—Rosedale Cement, Brick and Stone Co. incorporated with \$50,000 capital stock by Joseph E. Campbell, F. D. Pelletier and John J. Riggs.

Mo., Kansas City—Marble and Stone.—The Stone & Marble Co. incorporated with \$10,000 capital stock by C. P. Talbot and others.

Mo., Kansas City—Construction.—Clark-Williams Construction Co. incorporated with \$100,000 capital stock by R. A. Clark, H. E. Williams and others.

Mo., St. Louis—Dyeing and Cleaning.—G. Gaubatz Dyeing & Cleaning Co. incorporated with \$10,000 capital stock by George Gaubatz, Charles Gaubatz and others.

Mo., St. Louis—Construction.—Jones-Gray Construction Co. incorporated with \$50,000 capital stock by Edward M. Jones, J. Fred Gray and Clarence T. Case.

N. C., Selma—Publishing.—Selma Progress Publishing Co. incorporated with \$5000 capital stock by R. L. Ray, R. M. Nowell, E. G. Richardson and others.

N. C., Shelby—Publishing.—Highlander Publishing Co. incorporated with \$25,000 capital stock by Broadus H. De Priest, John F. Schenck and others.

Okla., Butler—Supplies.—Butler Supply Co. incorporated by J. C. Howard, C. H. Lamb and C. R. Strong, all of Clinton, Okla.

Okla., Muskogee—Garbage Disposal.—City voted \$35,000 bond issue for construction of garbage-disposal plant; Alexander Potter, consulting engineer, 114 Liberty St., New York. (City recently noted as planning to expend \$35,000 for construction of said plant.)

Okla., Oklahoma City—Garage.—J. L. Francis will erect garage and apartment building; three stories; brick; front 50 feet; cost \$25,000; lower floor for garage; upper floors for 20-suite apartment.

Okla., Oklahoma City—Amusement Resort.—Oklahoma State Fair Association will establish amusement resort at State Fair grounds; will install merry-go-round, scenic railway, etc.; erect refreshment pavilion, bandstand and \$10,000 theater; latter to be 80x140 feet, frame construction; seating capacity 1600.

Okla., Shawnee—Publishing.—Shawnee Herald Co. incorporated with \$10,000 capital stock; V. E. Harlow, president; E. M. Von Hooser, vice-president; S. M. Kanady, secretary-treasurer; Old State Publishing Co.'s plant.

S. C., Beaufort—Publishing.—Beaufort County Democrat Co. incorporated with \$2500 capital stock; W. F. Sanders, president; T. Talbird, vice-president; G. W. Beckett, secretary; Gus Sanders, treasurer.

Tenn., Clarksville—Lands.—Cumberland Valley Land Co. recently reported incorporated (under "Land Developments.") with \$60,000 capital stock, will deal in lands; H. N. Leech, president; C. B. Lyle, secretary-treasurer.

Tex., Goliad—Steam Laundry.—Goliad

Steam Laundry incorporated with \$25,000 capital stock by W. B. Campbell, R. S. Renfro and J. W. Obanion.

S. C., Greenville—Electric Supplies.—Atlantic Electric Supply Co. incorporated with \$10,000 capital stock by D. A. Henning, Jr., H. L. Fuller and E. C. De Bruhl.

Tex., Beaumont—International Creosoting & Construction Co., F. L. Lee, president, Galveston, Tex., is rebuilding fire-damaged plant; will erect main building 65x170 feet; cylinder with daily capacity of 60,000 feet; fireproof construction; cost not decided; operations begin about March 1. (Company recently noted to rebuild.)

Tex., Llano.—Jernigan & Schultz (not Frank Gray as recently stated) awarded contract to Finley & Barker (address, care of firm) for erection of garage; 44x120 feet; fireproof construction; cost \$380.

Tex., Seguin—Garage.—C. F. Blumberg awarded contract to Robert Filsing, R. F. D. No. 4, New Braunfels, Tex., for erection of garage recently noted; 54x80 feet; semi-fireproof construction; stoves; electric lighting; cement sidewalks; cost \$4000; plans by Harvey L. Page Company, San Antonio, Tex. (See "Machinery Wanted.")

Tex., Temple—Printery.—Temple Printing & Office Appliance Co. incorporated with \$7000 capital stock by J. F. Crouch, W. E. Matthews and A. C. Bristow.

Texas—Steamship Line.—Charles Francis Adams, Elmer J. Bliss, John Candler Cobb, Albert Greene Duncan, C. H. W. Foster and others of Boston, Mass., are interested in organization of company with at least \$1,000,000 capital stock to establish steamship line between Boston, Mass., and Texas ports; rumor says company may absorb Seaboard-Gulf Line, operating between Velasco, Tex., Maine and New York.

Va., Staunton—Crossstiles.—Mercereau-Hawkins Tie Co. incorporated with \$100,000 capital stock; M. W. Mercereau, president; E. K. Mercereau, vice-president; J. M. Hawkins, treasurer; J. D. Lusk, secretary; will conduct general crossstile and lumber contracting business.

Va., Richmond—Construction.—H. L. Driscoll Construction Co. incorporated with \$25,000 capital stock; H. L. Driscoll, president; M. B. Van Doren, vice-president; W. J. McLaughery, secretary-treasurer.

W. Va., Charles Town—Garage.—A. S. Albin awarded contract to H. P. Cline, Charles Town, for erection of two-story garage.

W. Va., Logan—Electrical Supplies.—Logan Electric Co. incorporated with \$25,000 capital stock by W. F. Bevill, Charlie Bennett, O. M. Bisant and others.

MISCELLANEOUS FACTORIES

Ala., Bay Minette—Tobacco.—Seminole Sun-matra Company incorporated with \$4000 capital stock by M. E. Hoseley, A. A. Tucker, E. C. von Ammon and others, all of Chicago, Ill.

Ark., Alma—Soap.—Alma Manufacturing Co. (recently reported organized with \$20,000 capital stock) will open bids about March 19 for erection of factory; install machinery; A. C. Starbird, president; J. J. Yoes, vice-president; William Sparling, secretary and manager; T. B. Murphy, treasurer. (See "Machinery Wanted.")

Ark., Ashdown—Creamery.—Turner & Wilson will establish creamery and erect 20x46-foot and 20x44-foot buildings; mill and fireproof construction; day labor; cost of machinery (purchased) \$100. (Recently noted.)

Ark., Fort Smith—Bottling.—Kelleam Bottling Works will rebuild bottling plant recently reported burned; 25x60 feet; brick; cost within \$1200; will install full line of bottling machinery; daily capacity, 100 to 200 cases. Address W. S. Kelleam. (See "Machinery Wanted.")

Ark., Fort Smith—Refinery.—Arkansas Refining Co., Charles T. Madison, president, First National Bank Bldg., will erect refinery; main building 30x60 feet, with 16-foot shed, two-story barrel-house and other buildings; nine storage tanks; fireproof construction; concrete blocks; construction begun. (Company recently reported incorporated with \$100,000 capital stock.)

Fla., Miami—Sugar.—W. R. Comfort of New York is superintending development of Compton-Huyler plantation; will plant 110 acres of cane this spring and eventually plant about 10,000 acres; will establish factory with annual capacity of 40,000 to 60,000 barrels of sugar.

Fla., Pensacola—Beverages.—Brainoil Company incorporated with \$100,000 capital stock; W. A. Blount, Jr., president, Pensacola; C. B. Dunn, first vice-president; D. J. Jones, secretary, both of Chipley, Fla.; Geo. W. Saxon, treasurer, Tallahassee, Fla.

Fla., St. Augustine—Cigars.—C. Melton Havana Cigar Manufacturing Co. incorporated with \$50,000 capital stock; C. Melton, president; Jose Casas, vice-president; Jose Melton, secretary-treasurer.

Fla., Tampa—Brewery.—Florida Brewing Co. will erect \$6000 addition to brewhouse; enlarge cellar for storage plant; these and other improvements recently made will almost double capacity.

Ky., Louisville—Butter and Cheese.—American Butter & Cheese Co. increased capital stock from \$6000 to \$50,000.

Ky., Murray—Tobacco.—Kentucky Tobacco Works incorporated with \$50,000 capital stock by N. L. Gilbert, B. W. Gilbert and others.

Ky., Newport—Gas.—Newport Electric Gas Co. incorporated by Bert V. Silverwell, Frank Vernhagen and Richard Clubb.

La., Baton Rouge—Oil Refinery.—Standard Oil Co. of Louisiana, Amos K. Gordon, treasurer, purchased 150 acres land adjoining oil refinery and proposes to practically double capacity of that plant; construction will practically duplicate present buildings and equipment; New York office at 29 Broadway. (Lately incompletely noted.)

La., Donaldsonville—Medicine.—Pitre's Rub-Er More Co. incorporated with \$5000 capital stock; Clinton J. Pitre, president and treasurer; Louis E. Pitre, vice-president.

Md., Baltimore—Elevator Safety Device.—Roth Elevator Safety Co., home office, 407 American Bldg., Baltimore, was incorporated with \$500,000 capital stock (not \$50,000, as previously stated); August A. Roth and J. F. Conrad, both of Baltimore, and E. R. Cochran, Wilmington, Del., incorporators; Mr. Roth is general manager.

Md., Baltimore—Distillery.—Ross S. Matthews of Connellsburg, Pa., purchased property of Mt. Vernon Brewing Co. at Wooster and Ridgeley Sts., and will establish brewery, ice and bottling plants.

Md., Baltimore—Aeroplanes.—Baltimore Monoplane Co. will be organized with \$300,000 capital stock by D. J. Carter, 2009 Boone St. J. B. Sebastian, 204 N. Liberty St., and others; will establish plant to manufacture aeroplanes; also school for aviators.

Md., Baltimore—Gas.—Consolidated Gas, Electric Light & Power Co. plans to increase common stock from \$6,300,054 to \$8,500,000; main office at Liberty and Lexington Sts.

Md., Baltimore—Industrial Building.—J. E. Aldred, president of Consolidated Gas & Electric Co., Liberty and Lexington Sts., and associates will have plans prepared by P. O. Keiholtz, engineer, 1902-3 Continental Bldg., Baltimore, for industrial building at Preston St. and Clifton Pl.; will erect building at present to occupy half of site, similar unit to be erected later; seven stories; fireproof construction; each floor to contain 18,000 square feet space; fireproof partitions; floors flexible to meet requirements of various manufacturers; seam bent; gas fuel for industrial use; electrical power for manufacturing supplied from central station; elevator shafts and stairways enclosed; central transportation system; cost of first unit, \$200,000; Theodore Wells Pietsch, American Bldg., Baltimore, consulting architect. (This building previously noted planned.)

Miss., Gulfport—Bottling.—Hartner Bottling Works incorporated with \$8000 capital stock by W. F. Hartner, L. A. Warnado and others.

Miss., Hattiesburg—Ice-Cream.—C. H. Griffis will establish ice-cream factory; machinery purchased.

Mo., Rolla—Doubletree.—U. S. Steel Doubletree Co. incorporated with \$20,000 capital stock by William E. Harmon, J. A. Jones and F. W. Webb.

Mo., St. Louis—Railway Supplies, etc.—Wm. E. Howett, president, Howett Mfg. Co., advises that company will, within next 30 to 60 days, decide upon plans for three-story-and-basement brick and reinforced-concrete building; basement for oil storage; first floor to be equipped with machinery for manufacture of railway supplies; two upper floors exclusively for warehouse purposes; contemplates awarding erection contract within next four months. (Recently reported incorporated with \$10,000 capital stock.)

Mo., St. Louis—Gasholder.—Laclede Gas Light Co., C. L. Holman, vice-president, 716 Locust St., awarded contract for erection of gasholder; capacity 5,000,000 cubic feet; cost recently noted (under Miscellaneous Enterprises) at \$275,000.

Mo., St. Louis—Automobiles, etc.—St. Louis Car Co. reorganized with \$400,000 capital stock; John I. Beggs, president; Edward Melissner, assistant to president; will manufacture commercial motor vehicles, trucks, delivery wagons, etc.

Mo., St. Louis—Flooring.—Chemical Floor & Tile Co. of Missouri has elected W. F. Rose, Sr., president; Edward P. Wielma, vice-president; D. F. Rose, Jr., secretary and manager; C. J. Grotiot, treasurer; will manufacture chemical floors and tile; building erected. (Recently reported incorporated with \$150,000 capital stock.)

Mo., St. Louis—Extracts.—Mound City Extract Co. incorporated with \$10,000 capital stock by Luther E. Williamson, Robt. L. Regler and others.

N. C., Asheville—Gas Plant.—Asheville Electric Co. contemplates installation of several thousand feet (about two miles) of new gas mains.

N. C., Smithfield.—A. S. Johnston Manufacturing Co. incorporated with \$10,000 capital stock; E. T. Ward, president; R. M. Mowell, vice-president; A. S. Johnston, secretary-treasurer.

N. C., Statesville—Gas Plant.—Delaware Gas Co. of Philadelphia, Pa., is reported as planning establishment of gas plant; 10 miles of mains, etc.; cost \$50,000.

N. C., Winston-Salem—Lime.—Yadkin Lime Co. incorporated with \$125,000 capital stock by A. J. Wellington, A. F. Messick, C. K. Messick and others.

N. C., Wilmington—Paint and Varnish.—Atlantic Paint and Varnish Works, 104½ N. Water St., will install additional machinery and increase present capacity of 1500 gallons of paint and varnish.

Okl., Britton—Fountains.—Southwestern Fountain Co., 27 E. Grand Ave., Oklahoma City, Okla., is reported as considering erection of plant near Britton; cost \$150,000.

Okl., Muskogee—Oil Refinery.—Muskogee Refining Co. increased capital stock from \$50,000 to \$50,000.

Okl., Oklahoma City—Leather Goods.—Hughes Bozarth, Anderson & Co. will be incorporated with \$100,000 capital stock; C. H. Anderson, president; J. T. Hughes, vice-president; E. L. Bozarth, secretary-treasurer; will establish leather factory at 11-13 E. Grand Ave.

Okl., Oklahoma City—Fire Escapes.—Wing Combination Fire Escape Co. incorporated with \$30,000 capital stock by N. L. Linebaugh, Mark H. Kessler and others.

S. C., Abbeville—Brooms.—Abbeville Lumber Co., J. M. Lawton, treasurer, contemplates establishing of broom factory.

S. C., Charleston—Toilet Preparations.—Wilson Freckle Cream Co. incorporated with \$50,000 capital stock by A. J. Geer, J. F. Riddle and H. W. Gower.

S. C., Columbia—Airships.—United States Aerial Publicity Co. (recently noted) will be incorporated with W. G. Howard, president; V. E. Jossenberger, 725 Main St., vice-president; A. A. Knee, treasurer; C. A. Morton, secretary and manager; will manufacture airships—dirigibles and aeroplanes; will open building proposals in April; building plans not decided. (See "Machinery, etc., Wanted.")

Tenn., Chattanooga—Elevators.—Sybilla Elevator & Manufacturing Co. incorporated with \$50,000 capital stock by Frank Sybilla, John O. Quentel, George Sybilla and others; will manufacture passenger and freight elevators.

Tenn., Humboldt—Marble and Granite Works.—Humboldt Marble & Granite Works will erect additional buildings and install additional equipment to increase capacity of plant.

Tenn., Jackson—Toilet Articles, etc.—Williams-Vincent Pharmaceutical Co. incorporated with \$10,000 capital stock by W. H. Williams, W. A. Vincent, G. D. Siler and others.

Tenn., Knoxville—Broadway Manufacturing Co. will increase capital stock from \$10,000 to \$20,000.

Tenn., Lexington—Marble Works.—Lexington Marble & Granite Works organized by Joseph W. Fuller of Parsons, Tenn.

Tenn., Memphis—Paint, etc.—De Soto Paint Co. organized with S. T. Carnes, president; T. F. Lilly, manager; purchased plant of Memphis Paint & White Lead Works. (Company recently reported incorporated with \$50,000 capital stock.)

Tenn., Memphis—Garters.—Mississippi Garter Co. incorporated with \$10,000 capital stock by W. W. Sadler, W. West, Paul Johnson and others.

Tenn., Memphis—Beverages.—Gay-Ola Bottling Co. incorporated with \$25,000 capital stock by E. C. Bolton, E. S. Sutton, S. B. Thomas and others.

Tenn., Memphis—Beverages.—Gay-Ola Company increased capital stock from \$50,000 to \$100,000.

Tenn., Memphis—Paints.—De Soto Paint Co. has purchased Memphis White Lead

Works; will erect no new buildings; S. T. Carnes, president; T. F. Lilly, manager. (Recently reported incorporated with \$50,000 capital stock.)

Tenn., Morristown—Cigar Lighters.—Electric Current Cigar Lighter Co. incorporated with \$5000 capital stock; T. S. Myers, president; C. M. Cain, vice-president; Herbert Jarnagin, secretary-treasurer; S. P. Harris, general manager.

Tenn., Nashville—Medicine.—Cottage Home Remedy Co., 154 Fourth Ave. N., has leased building and will manufacture medicine; daily capacity 500 bottles; B. B. Coffey, president and manager; W. C. Brown, secretary; J. W. Prickett, treasurer. (Recently reported incorporated with \$5000 capital stock.)

Tenn., Nashville—Beverages.—Nashville Syrup Co. incorporated with \$100,000 capital stock by John D. Fletcher, John R. Aust, Cowan Kirby and others.

Tenn., Nashville—Shirts, Pajamas, etc.—Huddleston-Cooper Company incorporated with \$50,000 capital stock by Ross Huddleston, Emmett Cooper, Forest Kirkpatrick and others.

Tenn., Nashville—Adding Machines.—National Adding Machine Co. organized with Newton H. White, president, Wales, Tenn.; Nathan Crockett, secretary-treasurer; Chas. Wales, general manager; leased building and will establish plant to manufacture adding machine invented by Mr. Wales. (Company recently reported incorporated with \$15,000 capital stock.)

Tex., Cameron—Creamery.—Company is being organized by Men's Business Club to establish creamery; officers not elected; title of company not determined; awarded contract to Hastings Industrial Co., Chicago, Ill., for erection of 24x44-foot main building; frame; tin roof; concrete floor; cost \$5150. (Recently noted.)

Tex., Brenham—Candy.—Knolle Candy Co. incorporated with \$5000 capital stock by Arthur Knolle, Jesse Schramm and others.

Tex., Dallas—Stenotypes.—Universal Stenotype Co., W. S. Ireland, president, incorporated with \$1,500,000 capital stock; contemplates erection of factory at place yet to be selected; main building 300x75 feet; two stories; concrete, steel reinforced; absolutely fireproof construction; machinery to be installed, with motors attached; will manufacture stenotypes for mechanical shorthand writing; contemplated daily capacity of 40 machines working one shift, or 80 machines with two shifts; R. M. Bowen, vice-president and acting manager. (Previously noted organized.)

Tex., O'Brien—Creamery.—O'Brien Cooperative Creamery Co. organized with \$300 capital stock by J. N. Hudson, A. A. Gant, T. W. Langston, M. O. Canfield and W. C. Benson.

Tex., Port O'Connor—Ships.—Besang, Meyer, Smith & Co. organized to establish shipbuilding plant.

Tex., Texarkana—Paul E. Williams, Paris, Tex., advises that plans are not yet drawn for Williams-Hubbard peanut factory recently noted to be established; daily capacity 1000 bushels; \$10,000 building to be erected. (See "Machinery Wanted.")

Tex., San Antonio—San Antonio Gas & Electric & Traction Co., W. B. Tuttle, general manager, will expend \$250,000 for various improvements, including \$8000 for boilers and machinery t gas works; will extend gas mains to Beacon Hill and on South Presa St. to Eads Ave. with branch mains in all directions.

Va., Richmond—Radium Spray.—Radium Spray Co. incorporated with \$50,000 capital stock; J. W. Lord, president; F. S. Rogers, vice-president; Gertrude I. Lord, secretary; F. N. Jennings, treasurer.

Va., Richmond—Invalid Bed Chairs.—F. C. Schofield (not P. C. Schofield) is vice-president of Mayo Supply & Manufacturing Co. recently noted.

Va., Richmond—Tooth Powder.—Prophytol Chemical Co. incorporated with \$10,000 capital stock; S. W. Meek, president; F. R. Tyler, secretary-treasurer.

W. Va., Fairmont—Bottle Machines.—Owens West Virginia Bottle Machine Co. will expend, it is reported, about \$1,000,000 for improvements to plant to almost double capacity.

W. Va., Parkersburg—Gasoline.—Wellsville Gasoline Co. incorporated with \$5000 capital stock by G. L. Watson, Robert L. Bushnell, S. S. Bushnell and others.

W. Va., Parkersburg—Gasoline.—West Virginia Gasoline Co. incorporated with \$5000 capital stock by Max Drey of New York, G. L. Watson and H. L. Stout of Parkersburg, and others.

W. Va., Parkersburg—Vitrolite.—Vitrolite Company will make improvements to plant to double capacity.

W. Va., Parkersburg—Gasoline.—Ohio Valley Gasoline Co. incorporated with \$5000 capital stock by G. L. Watson, Cornelius B. Watson, H. L. Stout and others.

W. Va., Parkersburg—Gasoline.—Belmont Gasoline Co. incorporated with \$5000 capital stock by Henry Goodkind, Martin H. Goodkind, P. Kleeberg, all of New York; G. L. Watson of Parkersburg and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, SHEDS, ETC.

Ark., Van Buren.—St. Louis, Iron Mountain & Southern Ry., M. L. Byers, chief engineer, St. Louis, Mo., contemplates, it is reported, expending \$100,000 for terminal improvements, including enlargement of yards, rebuilding of burned coal docks and erection of passenger station.

Tex., Bellville.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., will erect \$10,000 addition to roundhouse; construction begun.

Tex., Cleburne.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., will enlarge shops at cost of \$60,000.

Tex., Sweetwater.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., awarded contract to Wither-spoon-Englar Company, Chicago, Ill., to construct shops, terminals and other buildings at Sweetwater and Slaton Junction; buildings at Slaton Junction will consist of 12-stall roundhouse and turntable, power-house, machine and blacksmith shops, office building, supply building, hosehouse, concrete oil reservoir, pumping plant and tank, coal chute and sandhouse; structures at Sweetwater will be similar but larger, including 18-stall roundhouse, and, in addition, storehouse, car-repair plant and wood machinery and carpenter shop. (Previously mentioned.)

ROAD AND STREET WORK

Ala., Bay Minette.—City awarded contract to Bay Minette Concrete Co. to construct 4000 feet of sidewalk on Moog Ave. at 9 cents per square foot; E. D. Nuren is engineer in charge.

Ala., Cullman.—City has appointed W. A. McCall of Decatur, Ala., as City Engineer, who will prepare plans for construction of about five miles of sidewalk; M. L. Robertson, Mayor. (Sidewalks recently noted.)

Ala., Mobile.—Board of Public Works awarded contracts for street improvements in Eighth District, including Broad St. from Spring Hill Ave. to Texas St. and Conception St. from State to Beauregard St.; J. R. Ennis & Co. of Mobile at \$60,855 for wood-block paving; Galley & Clark of Mobile at \$3915 for cement curbing; J. R. Ennis & Co. of Mobile at \$24,174.90 for storm sewers; Wright Smith, Chief Engineer. (Recently mentioned.)

Ark., Helena.—City's plans for paving streets (recently noted) not determined; Hugh Martin, Mayor.

Fla., Palatka.—City awarded contract to H. S. Jaudon Engineering Co., Savannah, Ga., for paving Reid, N. 3d, 4th and other streets with vitrified brick; also for laying concrete sidewalks; S. C. Stalling, City Engineer.

Ga., Americus.—City will pave streets in business district with vitrified brick; estimated cost \$120,000, for which bonds have been issued. Address The Mayor.

Ga., Newnan.—City will vote on issuance of \$25,000 of bonds for street paving in fire limits and \$25,000 for other street improvements. Address The Mayor.

Ga., Summerville.—City will vote on issuance of \$45,000 of bonds for street improvements. Address The Mayor.

Ky., Louisville.—City will pave 3d, Portland, Jefferson, Garland, Dandridge and other streets with asphalt; total cost \$145,000, of which city will pay \$85,000 for original construction and property owners pay \$60,000 for reconstruction; Board of Public Works will receive bids until March 8.

Ky., Louisville.—City will repave with vitrified blocks Shelly and Mellwood Sts., alley between 8th and 9th Sts. and Magazine St. and Broadway, and alley between 9th and 10th Sts. and Chestnut and Madison Sts.; 14,700 square yards; Board of Public Works will receive bids until March 3; cost about \$27,000.

Ky., Nortonville.—City will macadamize streets. Address The Mayor.

La., Crowley.—City awarded contract to DeJersie & Barnard of Jennings, La., to

construct about 8 miles of concrete sidewalks; contract price, 12.45 cents per square foot for walks and 18.5 cents per square foot for driveways. (Lately mentioned.)

La., Lafayette.—City will construct 10,000 square feet cement sidewalks; contract awarded. Address The Mayor.

La., Vidalia.—City awarded contract to R. Scudmore, Natchez, Miss., to lay 900 yards of six-foot concrete sidewalks.

Miss., Aberdeen.—City will vote April 1 on issuance of \$50,000 of bonds for street paving, etc. Address The Mayor. (See "Schools.")

Miss., Meridian.—Good Roads Commission has \$200,000 available for construction of 40 miles of road in Beat No. 1; material to be used, broken stone or gravel; will probably open bids about March 1; W. P. Moore, engineer, will supervise construction. (Recently noted.)

Miss., Tupelo.—City will issue \$50,000 of bonds for street paving, etc. Address The Mayor. (See "Water-works.")

N. C., Fayetteville.—City will construct light traffic street pavement to amount of \$35,000; C. B. Ledbetter, chairman of street committee. (See "Machinery Wanted.")

N. C., Pittsboro.—City will vote March 11 on issuance of \$5000 of bonds for street improvements; B. Nooe, Mayor.

Okla., Alva.—City has awarded contract for additional street paving. Address The Mayor.

Okla., Oklahoma City.—City will pave with sheet asphalt, grade and otherwise improve Lindsay Ave., Wheeler St., intersection of Bath Ave. and 12th St., 7th St., 31st St., etc.; bids received until February 27; Bob Parman, City Clerk. (See "Machinery Wanted.")

S. C., Sumter.—City voted issuance of \$25,000 of bonds for paving business streets. Address The Mayor. (Recently mentioned.)

Tex., Abilene.—City awarded contract to Texas Bitulithic Co., Dallas, Tex., for paving North St.; paving to intersect Pine St. and extend one block. (Recently noted.)

Tex., Comanche.—Commissioners' Precinct, No. 1, of Comanche county will vote March 25 on issuance of \$100,000 of bonds for road construction. Address County Commissioners.

Tex., Georgetown.—Granger-Bartlett Justice Precinct of Williamson county will vote March 29 on issuance of \$100,000 of bonds for macadam road construction. Address County Commissioners.

Tex., Hamlin.—City will pave business section with brick on concrete base; bonds issued. Address The Mayor.

Tex., Pearsall.—Frio county will vote March 25 on issuance of \$75,000 of bonds for road construction. Address County Commissioners.

Tex., Pecos.—City will, it is reported, construct additional sidewalks to cost \$15,000. Address The Mayor.

Tex., San Antonio.—Los Angeles Heights Improvement Co., George Haglestein, president, is proceeding with construction of 1,800,000 feet of sidewalks; contract awarded to San Antonio Concrete Construction Co., San Antonio. (Recently noted awarded to C. E. Miller.)

Tex., Smithville.—City will vote on issuance of bonds for street improvements. Address The Mayor.

Va., Lebanon.—Russell county voted issuance of \$275,000 of bonds for road improvement and construction. Address County Commissioners. (Recently mentioned.)

Va., Norfolk.—City will pave with smooth material portion of Bank St.; about 4125 square yards; bids received until March 1; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

Va., Richmond.—City will pave roadbeds of certain streets with granite spall; bids received until February 28; Charles E. Bolling, City Engineer. (See "Machinery Wanted.")

Va., Tazewell County.—Tazewell county's contemplated petition to Circuit Court calls for \$600,000 bond issue for road improvement; town of Graham to receive (provided bond issue carries) \$20,000 to \$25,000 of this amount for macadam roads; Clear Fork District will receive \$250,000; Jeffersonville District \$200,000 and Malden Spring District \$150,000. V. L. Sexton, Mayor.

W. Va., Huntington.—City Commissioners awarded contract to Harrison & Dean for 37,000 square yards of brick paving on gravel and concrete base and 29,000 linear feet of concrete curb and gutter, cost \$30,000; Freshwater & Son for granite block and brick paving; George Hinkle, brick and granite block paving; concrete curb and gutter will be used principally.

SEWER CONSTRUCTION

Ala., Uniontown.—City awarded contract to Sullivan & Long, Bessemer, Ala., at \$17,965 to construct sewer system and sewage-disposal plant; work includes construction of 1840 linear feet of 15-inch pipe sewers, 3000 linear feet 12-inch pipe sewers, 7500 linear feet 10-inch pipe sewers, 15,200 linear feet 8-inch pipe sewers, lampholes and manholes; Edgar B. Kay, engineer, Tuscaloosa, Ala.; D. M. Coleman, Mayor. (Recently mentioned.)

Ala., Mobile.—Board of Public Works awarded contract to J. R. Ennis & Co. of Mobile at \$24,174.90 for construction of storm sewers in connection with street paving in Eighth district; Wright Smith is chief engineer. (See "Road and Street Work.")

D. C., Washington.—Bids will be received until February 21 for construction of sewers; Cuno H. Rudolph and others, Commissioners, District of Columbia. (See "Machinery Wanted.")

Ga., Atlanta.—City will construct Intercourse Creek disposal plant, Intercourse Creek intercepting sewer from county line to location of plant, DuBose aqueduct on Peachtree Creek intercepting sewer line, aqueduct and bridge over Orme St. branch on Collier Rd., and aqueduct on Intercourse Creek; bids will be received until March 14; Horing & Fuller, 170 Broadway, New York, are engineers; R. M. Clayton, chief of construction. (See "Machinery Wanted.")

Ga., Camilla.—City will vote on \$20,000 bond issue for city hall and sewerage. Address The Mayor.

Ga., Summerville.—City will vote on issuance of \$30,000 of bonds for construction of sewer system and water-works. Address The Mayor.

Md., Arlington.—Arlington Sanitary Sewerage Co. incorporated with \$25,000 capital stock by Thomas J. Flannery, Gwynn Oak and Hamilton Aves.; Mortimer W. West (president Mortimer W. West Realty Co.), 6 E. Lexington St., and Thomas B. Marshall (secretary-treasurer Title Guarantee & Trust Co.), 643 Calvert Bldg.; will construct sewer system for Baltimore county in vicinity of Belvidere Ave., west of Park Heights Ave. (Previously mentioned.)

Md., Fort Washington.—Bids will be received until March 20 for construction of eight-inch sewer outlet and iron outfall; Capt. R. H. C. Kelton, constructing quartermaster. (See "Machinery Wanted.")

Miss., McComb.—City will, it is reported, construct sewer system. Address The Mayor.

N. C., Rockingham.—City is considering issuance of bonds for extension of sewer system. Address The Mayor.

Okla., Britton.—City will vote on issuance of \$20,000 of bonds for construction of sewer system and water-works for College Place Addition (suburb). Address The Mayor.

Okla., Muskogee.—City voted issuance of \$225,000 of bonds for construction of sewage-disposal system; sewage to be carried six miles to Arkansas River; Alexander Potter, 114 Liberty St., New York, engaged as consulting engineer. (Recently mentioned.)

Okla., Oklahoma City.—City voted issuance of \$125,000 of bonds for extension of sewer systems; Dan V. Lackey, Mayor.

Okla., Tulsa.—City awarded contract to Hunter & Roach of Tulsa at \$2133.16 to construct 48-inch storm sewer near Owasso and 4th Sts.

Tenn., Madisonville.—Robert Koeppe, civil engineer, Chicago, Ill., has completed survey of city preparatory to construction of proposed system of sanitary sewers.

Tex., Corpus Christi.—City awarded contracts for pumps at \$4024; sewer pipe at \$7466.75; manholes and lumber required for sewer system to be constructed at estimated cost of \$140,000; F. H. Lancashire, engineer, Dallas, Tex., was recently stated as having been engaged to supervise construction work.

Tex., Dallas.—Municipal Commissioners instructed J. B. Winslett, City Secretary, to invite bids for construction of storm sewer in South Harwood St. from Jackson St. to Grand Ave.; cost about \$14,020; also awarded contract at \$907.00 to Dallas Lime & Gravel Co. for construction of storm sewer in Columbia Ave. and Main St.

Tex., Galveston.—City Commissioners contemplate improvements in area bounded by 33d and 45th Sts., Ave. H and bay; proposed to construct two drains northwardly into bay at estimated cost of \$15,000 each and to fill alleys and streets at cost of about \$16,000.

Tex., Harlingen.—City voted issuance of sewer bonds. Address The Mayor.

Tex., Texas City.—Texas City Sewerage Co.

incorporated with \$50,000 capital stock by F. B. Danforth, William Dossett and Clyde Amburn.

Va., Front Royal.—A. F. Brown, engineer, Fredericksburg, Va., has prepared plans for sewerage system to comprise about four miles of pipe; contract for construction work will soon be awarded.

Va., Richmond.—Board of Aldermen authorized construction of sewer in Floyd Ave. from Boulevard to corporation line, and in Main St. from Deep Run to West St., to cost \$850; also in Baker St. from Oakwood Ave. to Dickerson St., and in Dickerson St. from Cowardin Ave. to P St., to cost \$140; Charles E. Bolling, City Engineer.

TELEPHONE SYSTEMS

Ala., Woodlawn.—People's Home Telephone Co., general offices, Birmingham, Ala., will expend \$50,000 for improvements to system, including establishment of central exchange to serve Woodlawn and East Lake, extending wires to Boyles, etc.; all materials purchased; H. H. Stambaugh, president, Youngs town, O.

Fla., Ocala.—E. M. Henry and W. W. Condon will construct telephone line to Crawford; contemplate constructing 100-mile line.

Ga., Hawkinsville.—L. F. Blasingame awarded contract to J. L. Huggins, Atlanta, Ga., for extension to telephone building and system of water-works.

N. C., Albemarle.—Albemarle Telephone Co. will make improvements to telephone system, including cabling wires in town.

N. C., Monroe.—Monroe Telephone Co. incorporated with \$10,000 capital stock by W. H. Belk & Bro., Geo. S. Lee and others.

Okla., Britton.—Britton Telephone, Telegraph & Electric Co. incorporated with \$300 capital stock by G. E. Crawford, S. S. Shaffer, E. S. Rose and others.

Tex., Houston.—Southwestern Telephone & Telegraph Co., main office, Dallas, Tex., will receive bids through Sanguinet & Staats, architects, Houston, until February 27 for erection of seven-story-and-basement steel fireproof building; bids to state time for completion; certified check for \$2500, payable to the company; plans and specifications at office of architects, as above; plumbing, heating and wiring bids to be asked later. (Company's \$600,000 improvements recently detailed.)

Va., Nickelsville.—Dungannon & Nickelsville Telephone Co., R. L. McConnell, secretary, will construct 25 miles telephone line; J. M. Darter, engineer in charge. (Recently reported incorporated with \$5000 capital stock.)

W. Va., Ireland.—Kanawha District Telephone Co. incorporated with \$10,000 capital stock by F. B. Eurit, Lee Bull, John F. Bull and others.

TEXTILE MILLS

Tenn., Chattanooga.—Cotton Goods.—Bowen-Jewell Company incorporated with \$200,000 capital stock by W. L. Bowen, D. A. Jewell, A. S. Bowen and others.

Tenn., Humboldt.—Sheeting, etc.—Humboldt Cotton Mills will install additional new machinery; now has 820 ring spindles, 184 narrow looms, 56 broad looms, etc.

WATER-WORKS

Ala., New Decatur.—City voted issuance of \$10,200 water-works bonds. Address The Mayor.

Ark., Texarkana.—Texarkana Water Corporation awarded contract to W. A. Barrow of Texarkana to construct power plant; fireproof; cost \$500. (Company was recently mentioned as having made preliminary arrangements for first extension of 25,000 feet of water mains in West Side.)

Fla., Titusville.—City voted issuance of \$30,000 of bonds for construction of water-works. Address The Mayor.

Ga., Butler.—Company has been organized to construct water-works; B. B. Rawls is president of company and W. C. Steed president board of directors; capacity, 5000 gallons; contract let.

Ga., Douglasville.—City awarded contract to J. B. McCrary & Co., Atlanta, Ga., to construct water-works; \$20,000 of bonds issued; J. R. Hutcheson, Mayor. (Recently mentioned.)

Ga., Gainesville.—City will receive bids until February 27 for construction of water-works; E. B. Epps is City Engineer; R. D. Mitchell, chairman Bond Commission. (See "Machinery Wanted.")

Ga., Summerville.—City will vote on issuance of \$30,000 of bonds for construction of water-works and sewer system. Address The Mayor.

Md., Frederick.—City will improve water-works. Address The Mayor.

Miss., Tupelo.—City will issue \$50,000 of bonds for improving and enlarging water-works, paving streets and erecting city hall. Address The Mayor.

Miss., Tylerstown.—City is considering construction of water-works; Xavier A. Kramer, Magnolia, Miss., submitted proposition. Address The Mayor.

Mo., Webb City.—Webb City & Carterville Water-works Co. has opened bids for construction of 1,500,000-gallon reinforced concrete reservoir; J. O. Williams, Aurora, Mo., is lowest bidder at \$7400; reservoir is to be built in two sections, each 100 feet square and 9½ feet deep; company has completed drilling of three wells and is drilling fourth well. (Recently mentioned.)

N. C., Rockingham.—City is considering issuance of bonds for extension of water-works. Address The Mayor.

N. C., Jonesboro.—City will receive bids until March 13 for construction of water-works; system will comprise four miles of 6 and 8-inch pipe and 75,000-gallon tower and tank; will require 165 tons of 6-inch and 220 tons of 8-inch cast-iron pipe; White & Piatt, Durham, N. C., are engineers; D. H. Arnold, Mayor. (See "Machinery Wanted.")

Okla., Britton.—City will vote on issuance of \$20,000 of bonds for construction of water-works and sewer system for College Place Addition (suburb). Address The Mayor.

Okla., Dustin.—City is considering installation of water-works system; upon completion of plans bids will be asked; F. P. Hicks, Clerk.

Okla., Lamont.—City has, it is reported, voted issuance of \$20,000 water-works bonds. Address The Mayor.

Okla., Muskogee.—City voted issuance of \$250,000 of bonds for doubling capacity of water-works; Alexander Potter, 114 Liberty St., New York, engaged as consulting engineer. (Recently mentioned.)

Okla., Oklahoma City.—City defeated \$1,250,000 bond issue for construction of water reservoir and voted issuance of \$125,000 of bonds for extension of water mains; Dan V. Luckey, Mayor. (Recently mentioned.)

Okla., Skiatook.—Osage-Cherokee Corporation incorporated with \$100,000 capital stock by C. H. Cleveland, A. W. Lucas, J. H. Craig and others; proposes to acquire franchises for construction of water-works, electric-light systems and other public-service utilities.

Okla., Stonewall.—City voted bond issue of \$30,000 for water-works. Address The Mayor.

S. C., Rock Hill.—City has acquired property of Martin Maloney of Philadelphia, Pa., consisting of water-works, electric-light plant and franchises for \$100,000. Address The Mayor. (Recently mentioned.)

Tex., Ballinger.—City awarded all contracts for extension to water mains and improvements to system at cost of \$16,000; 1,400,000 gallons capacity; improvements include 13,000 feet four-inch water-main extension; 32x54-foot stone pump station, cost \$1500, and 750,000-gallon pressure filter to cost \$3100; J. A. Kelly, engineer in charge. (Recently noted.)

Tex., Brady.—City will expend \$40,000 to construct water-works; capacity 250,000 gallons; will construct three dams, two to cost \$7000 each, \$8000 filter plant and \$3000 pumping station; J. B. Hawley, engineer in charge, Fort Worth, Tex.; will advertise for bids. (Recently noted to vote in March on \$40,000 bond issue.)

Tex., Belton.—City awarded contract to Tom Fountain of Fountain-Shaw Engineering Co. (engineer in charge) for construction of water-works in South Belton; bids for standpipe will be invited by contractor. (City recently noted to have \$11,000 bond issue for water-works improvements.)

Tex., Fort Worth.—City awarded contract to Little & Judson of San Antonio, Tex., to drill four artesian wells; 10 inches in diameter; will be bored below Trinity sands, which lie at estimated depth of 1100 to 1200 feet; cost about \$5500 each.

Tex., Galveston.—Board of City Commissioners will receive bids until April 3 on material for and construction of water main along causeway from Virginia Point to Galveston Island; H. C. Lange, Commissioner Water-works and Sewerage; A. T. Dickey, City Engineer. (See "Machinery Wanted.")

Tex., Harlingen.—City voted issuance of water-works bonds. Address The Mayor.

Tex., Jacksboro.—City voted issuance of \$28,000 of bonds for construction of water-works; has engaged N. Werenskold, consulting engineer, Dallas, Tex.; H. C. McClure, Mayor.

Tex., Rusk.—City voted issuance of \$18,000

of bonds for construction of water-works. Address The Mayor. (Recently mentioned.)

W. Va., Shepherdstown.—Town Council granted franchise to H. C. Brooks Company, Clarksburg, W. Va., to construct water-works costing \$20,000 to \$30,000.

WOODWORKING PLANTS

Ala., Ashville—Cooperage.—Ashville Cooperage Co. incorporated with \$10,000 capital stock by M. R. Abernathy, W. C. Chandler, J. E. Poynter and others.

Fla., Jacksonville—Refrigerators, etc.—H. C. Jones (of Seminole Bldg. Co.) and J. M. Houston, Chicago, Ill., are considering establishment of plant for manufacturing refrigerators, doors, interior trimmings and portable houses.

Fla., Key West—Cigar Boxes.—Norberg Thompson has completed building and purchased machinery to manufacture cigar boxes; daily capacity, 10,000 boxes. (Recently noted.)

Ga., Atlanta—Bank Fixtures.—Geo. W. Muller Bank Fixture Co. organized with \$100,000 capital stock; will erect plant on three-acre site; plant about 487 feet long; brick buildings; construction begun; has temporary plant at 40-42½ Peters St.; Geo. W. Muller, president and treasurer. (Previously noted as incorporating company, but has since decided to locate at Atlanta.)

Ga., Thomaston.—Garner-Nelson Lumber Co. will install woodworking machinery. (Recently noted under "Machinery Wanted" as Thomaston Ice Co.)

La., New Orleans—Furniture.—New Orleans Furniture Co. will erect addition to factory at Front and Belcastle Sts.; additional machinery will be installed; reported to cost \$100,000.

La., West Monroe—Monroe Mill Work & Supply Co.—J. H. Watkins, secretary-treasurer, organized with \$30,000 capital stock; will erect woodworking plant; machinery purchased.

Miss., Natchez—Spokes.—T. W. Ross, Georgetown, Miss., and George McMasters, Moline, Ill., are considering establishment of spoke factory; location not decided.

N. C., Dallas—Shingles.—Clemmies Metallic Shingle Co. will establish plant to manufacture shingles; building erected; cost of machinery (purchased) \$200; daily capacity 30 squares; location of plant not decided; officers not elected.

N. C., Reelsboro—Telephone Pins, Brackets, etc.—Hardwood Manufacturing Co., G. M. Reel, secretary, will install machinery to manufacture telephone pins, brackets, washboards and various handle shapes, etc.; also shingles, egg crates, coops and other hardwood products.

S. C., Batesburg—Sash, Doors, etc.—John M. Hook will establish plant for manufacturing sash, doors and blinds; building completed; machinery purchased.

Tenn., Humboldt—Fruit Packages.—B. C. Jarrell & Co. will install 100 horse-power boiler, in addition to other machinery, to increase output of plant.

Tenn., Morristown—Wagons.—H. L. Witt & Sons are considering establishment of plant for manufacturing circus wagons.

Tenn., Sparta—Spokes and Shutters.—Baker & Roberts will establish plant in East Sparta for manufacture of spokes and shutters.

Va., Farmville—Farmville Manufacturing Co. and Buffalo Manufacturing Co. will consolidate and reorganize with \$100,000 capital stock; will erect plant.

Va., Lynchburg—Wagons.—Thornhill Wagon Co. will install machinery in plant recently noted; as previously stated, awarded contract to C. W. Hancock & Son, Lynchburg, to erect main factory building; smaller structures to be built later. (See "Machinery Wanted.")

Va., Lynchburg—Box Shooks.—American Box Co. increased capital stock from \$10,000 to \$100,000; will erect \$6000 building; mill construction; date of opening bids not set; cost of box-shook machinery \$14,000; capacity 20,000 to 30,000 feet pine and oak.

Va., Staunton—Barrels.—Company organized by Watson Gooch, McChesney Goodall and Wallace Payne to establish barrel factory; contemplates expending \$5000 on buildings alone.

BURNED.

Ala., Cullinan—Charles W. Dorrough's residence.

Fla., Micanopy.—B. W. Fontaine's store building and residence, loss \$10,000; Mayor McCrede's garage.

Ga., Athens.—Empire State Chemical Co.'s main shipping building; loss about \$100,000.

Ky., Lexington.—Gentry & Thompson Stockyards; loss about \$75,000.

Ky., Pembroke.—Q. F. Combs & Co.'s flour mill; loss \$3000.

Ky., Tompkinsville.—Counts Hotel.

La., Pollock.—J. F. Ball & Bros. Lumber Co.'s boiler and fuel room of sawmill; estimated loss \$4000.

Miss., Courtland.—W. H. McNeely & Co.'s building; Will Carry's building; J. W. Bailey & Sons' building; J. M. Andrews' building; H. E. Well & Co.'s building; loss \$20,000.

Miss., Washington.—Wallace Ratcliff's cotton gin; loss \$3300.

S. C., Jonesville.—J. F. Alman's building;

J. J., Littlejohn's two buildings; S. G. Gault's building; loss \$68,000.

S. C., Woodruff.—Woodruff Roller Mills; loss \$10,000.

Tenn., Excell, R. F. D. from Hickory Point.—A. D. Crotzer & Co.'s corn grist mill.

Tenn., Bristol.—Metropolitan Methodist Episcopal Zion Church building; loss \$7000. Address The Pastor, Metropolitan Methodist Episcopal Zion Church.

Tex., Corsicana.—Boys' building at State Orphans' Home; loss about \$20,000; Rev. Dr. Tarrant, superintendent.

Tex., San Antonio.—Webster & Co.'s warehouse at Lamar and N. Walnut Sts.; loss about \$10,000.

Va., Danville.—Ancient Free and Accepted Masons' building damaged; loss \$3000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Jacksonville.—Estate of A. C. Stranberger will erect two-story frame apartment house.

Ga., Savannah.—P. A. Waring and Minna Waring will erect three two-story apartment houses.

Ky., Louisville.—Adam J. Wiegand will erect apartment-house; two and a half stories; brick; cost \$10,000.

La., New Orleans.—Young Men's Gymnasium Club will erect club and apartment building. (See "Miscellaneous Structures.")

Mo., St. Louis.—Honora McGowan, Thor A. Bidwell and others have plans for apartment-house at Hamilton and Van Versen Aves.; three stories; brick; cost \$100,000.

Mo., St. Louis.—Rudolph C. Schlegel will erect store and apartment building; two stories; brick.

Okla., Oklahoma City.—J. L. Francis will erect garage and apartment building. (See "Miscellaneous Enterprises.")

Tenn., Chattanooga.—Albert Coffin will receive bids through architects, Huntington & Sears, James Bldg., Chattanooga, for erection of 20-room apartment-house; two stories; 42x80 feet; hot-water heat; gas and electric lighting; composition roof; cost \$9000. (Recently noted.)

Okla., Oklahoma City.—J. L. Francis will erect garage and apartment building. (See "Miscellaneous Enterprises.")

erection of \$30,000 building; F. L. Downs, chairman building committee.

Va., Danville.—Danville Lodge No. 227, Benevolent Protective Order of Elks, will erect lodge building; three stories and basement; cost \$35,000.

BANK AND OFFICE

Ala., Birmingham.—H. G. Woodward will remodel office building; brick; terra-cotta and stone trimmings.

Ala., Birmingham.—Managers of Brown-Marx Bldg. will remodel and erect 50 additional office rooms.

Ark., Dalark.—Dalark Bank will erect bank building; two stories; brick; 26x50 feet.

D. C., Washington.—Nathan Horn, 637 F St. N. W., purchased building at 924 F St. N. W. for \$30,000 and will remodel; first floor will be used for store and second and third floors for offices.

Fla., Madison.—First National Bank will open bids March 15 (extended date) for erection of two-story 25x100-foot bank building; cost \$10,000; plans by W. B. Camp, Jacksonville, Fla. (Recently described.)

Fla., Tallahassee.—William C. Hodges will expend \$25,000 to erect three-story office building; 40x80 feet; fireproof construction; steam heat; electric lighting; electric elevator; plans by Grossmann-Mahler Architectural & Construction Co., Wilmington, N. C. (Previously noted.)

La., Algiers, St. A., New Orleans.—Interstate Trust & Banking Co., New Orleans, La., will erect bank building.

Ga., Garfield.—Farmers' Bank will erect brick bank building to cost \$6000; construction begun.

S. C., Edgefield.—Farmers' Bank will erect bank building; brick; oolithic limestone front; bids received; plans and specifications may be seen at office of MacMurphy & Story, architects, 18 King Bldg., Augusta, Ga., or at bank.

S. C., Sponents.—Sponents Banking Co. is ready to receive bids for erection of 27x40 foot bank building; contractor to furnish all material. (See "Machinery Wanted.")

Mo., St. Louis.—May Department Stores Co. will erect 21-story office and store building. (See "Stores.")

Okla., Norman.—First State Bank of Norman will expend \$25,000 to erect bank and office building; 25x10 feet; three stories; fireproof construction; vacuum steam heat; electric lighting; plans by Bailey & Bailey, 901 Colcord Bldg., Oklahoma City, Okla.; bids opened March 29; heating, plumbing and wiring let separately. (Recently noted.)

Okla., Tulsa.—E. L. Fox is having plans prepared by J. P. Curtiss of Tulsa for five-story fireproof office building.

Tex., Arp.—State Bank, J. D. Allen, president, will erect brick bank building.

Tex., Dallas.—Building committee of Dallas Cotton Exchange, S. W. King, Jr., chairman, invites bids for erection of proposed Exchange Bldg.; seven stories; 75x132 feet; fireproof; cost \$150,000 to \$200,000; expected that contract will be awarded by March 1; plans by Lang & Witchell of Dallas.

Va., Norfolk.—F. R. Royster, president of Royster Guano Co., expects to erect office building next year; has engaged architects to prepare plans; building probably of steel construction, and 12 to 14 stories high.

W. Va., Keyser.—First National Bank will expend \$3000 to remodel bank building; upper floor to be used as theater; improvements include new seating, floors, steps, etc. (Recently noted.)

W. Va., Welch.—Hutson Bros. are having plans prepared by Pedigo & Garry of Welch for office and store building to cost \$18,500.

CHURCHES

Ala., Elba.—Baptist congregation will erect edifice. Address The Pastor, Baptist Church.

Ala., Fairview, P. O. Birmingham.—Methodist congregation will erect brick edifice to cost \$10,000. Address The Pastor, Methodist Church.

Ark., Fort Smith.—First and Central Methodist congregations will consolidated and erect two edifices costing about \$100,000. Address The Pastor, First Methodist Church.

Ark., Little Rock.—A. D. Wildy will erect church building to cost \$3000.

Fla., St. Petersburg.—Catholic congregation will erect brick edifice to cost about \$5000. Address The Pastor, Catholic Church.

Fla., St. Petersburg.—Congregational Church will erect edifice. Address The Pastor, Congregational Church.

Fla., Tampa.—Clark Memorial Church will erect edifice to cost \$10,000 to \$12,000; plans by A. L. Shaw of Tampa; construction begun.

Ga., Atlanta.—Trinity Methodist Church, Rev. John B. Robins, pastor, contemplates erection of \$100,000 edifice; 50x100 feet; plans not determined; W. R. Hammond may be addressed. (Recently noted.)

Ga., Rome.—South Broad Methodist Church, Rev. J. Walter King, pastor, purchased site and will erect edifice; 45x110 feet; stoves; electric lighting; cost \$7500; will open bids May 15. Address proposals to J. N. McGehee.

Ky., Louisville.—Dumesnil Episcopal congregation will erect one-story frame edifice to cost \$4000. Address The Pastor, Dumesnil Episcopal Church.

Ky., Louisville.—Baptist Church will erect church building for deaf-mutes. Address Rev. J. W. Michaels.

Ky., Louisville.—St. Augustine's congregation will erect church building and parsonage; latter will be of brick and cost \$5000; former will be two stories, 55x90 feet, brick and stucco, faced with stone, and cost \$25,000. Address The Pastor, St. Augustine's Church.

La., Crowley.—St. Michael's Catholic congregation will erect \$30,000 edifice. Address The Pastor, St. Michael's Catholic Church.

La., Baton Rouge.—First Baptist Church accepted plans by William Drago, New Orleans, La., for edifice; 58x90 feet; seating capacity 1250; hot-air heat; electric lighting; cost about \$30,000. (Recently mentioned.)

La., Mansfield.—First Baptist Church invites architects to submit plans and specifications for edifice; brick; 10 Sunday-school rooms, exclusive of primary department; steam heat; cost (not including equipment) \$15,000; usual rights reserved. Address F. N. Butler, chairman of committee.

Md., Baltimore.—Wilson Memorial Baptist Church is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for edifice; one story and basement; concrete foundation; slate roof; interior finished in hardwood; B. W. & E. Minor, 224 W. Pratt St., are estimating.

Md., Baltimore.—Howard Park Methodist Episcopal Church will erect stone edifice. Address Rev. Edward L. Watson, 1625 Bolton St., district superintendent.

Miss., Aberdeen.—Methodist Episcopal Church South, C. L. Tubb, secretary-treasurer building committee, will receive sealed proposals until 2 P. M. March 9 for erection of edifice according to plans and specifications prepared by R. H. Hunt, architect, Chattanooga, Tenn.; plans on file with committee; usual rights reserved. (Previously noted.)

Mo., St. Louis.—St. Phillip's Episcopal Church, Rev. E. D. Johnson, pastor, will erect edifice to cost about \$35,000.

N. C., Monroe.—Protestant Episcopal Church, T. B. Dillon, chairman building committee, will erect \$6000 brick or stone edifice previously noted. (See "Machinery Wanted.")

Okla., McAlester.—First Presbyterian congregation will erect edifice to cost \$60,000. Address The Pastor, First Presbyterian Church.

S. C., Greenwood.—South Main Street Baptist Church has purchased site and will erect \$15,000 or \$20,000 edifice and parsonage. Rev. G. W. Gardner may be addressed. (Recently noted.)

S. C., Yorkville.—Trustees of Associated Reformed Presbyterian congregation will open bids about April 15 for erection of edifice; 300 to 400 seating capacity of auditorium; brick; low-pressure steam heat; electric lighting; cost \$7000. Address J. L. Oates. (Recently noted.)

Tenn., Centerville.—Methodist congregation will erect edifice to cost \$10,000. Address The Pastor, Methodist Church.

Tenn., Nashville.—Presbyterian church is considering erection of two edifices; Dr. James I. Vance, chairman of committee.

Tex., Dallas.—Colored Oak Cliff Methodist Episcopal Church will erect edifice; brick veneer; cost \$10,000; plans by George King of Dallas.

Tex., San Angelo.—Rev. P. F. Nichol, pastor, Sacred Heart Church, contemplates erecting edifice.

Va., Berkley, Station Norfolk.—St. Thomas' Episcopal congregation will erect edifice to cost about \$30,000. Address The Pastor, St. Thomas' Episcopal Church.

Va., Berkley.—St. Thomas Protestant Episcopal congregation contemplates erecting stone edifice to cost about \$30,000. Address The Pastor, St. Thomas Protestant Episcopal Church.

Va., Petersburg.—Grace Episcopal Church will erect addition to edifice; plans by M. P. Andrews of Petersburg.

Va., Richmond.—Highland Park congregation of Ascension Church will erect edifice; 45x110 feet; ordinary construction; cement block; hot-air furnace; electric lighting; cost \$5000; architect not selected. (See "Machinery Wanted.")

Va., Richmond.—Stockton Street Baptist Church has plans by W. C. West of Richmond for edifice; recently noted Ionic style of architecture; brick; hot-air heat; art-glass windows; size 38x82 feet; ordinary construction; gas and electric lighting; will probably open bids February 27. Address architect, 1103 E. Main St. (See "Machinery Wanted.")

Va., South Boston.—Baptist church, Rev. J. R. Doan, pastor, will erect edifice to cost \$20,000 to \$25,000.

Va., Martinsburg.—First Baptist Church, Rev. W. D. McCurdy, pastor, will erect edifice to cost about \$30,000.

Va., Wheeling.—Syrian Catholic Church, Rev. Paul Abraham, pastor, contemplates erecting edifice.

CITY AND COUNTY

Ark., Bentonville.—Jail, etc.—J. M. Jackson and W. T. Maxwell, Commissioners for Benton County, will receive proposals until March 4 for erection of jail and jailer's residence; cost \$15,000; plans and specifications on file in office of Commissioners; certified check for \$500 must accompany each bid; W. A. C. Jones, County Judge. (Previously noted.)

Fla., Jacksonville.—Fire Station.—City awarded contract at \$500 to Seaton & Son, Jacksonville, for erection of fire station on King's Rd.; 32x60 feet; buff brick; red tile trimmings. (Recently noted.)

Fla., Tampa.—Library.—City will erect \$50,000 Carnegie library. Address The Mayor.

Fla., Tampa.—Fire Station.—City, D. B. McKay, Mayor, will probably open bids about March 7 for erection of central fire station: 60x100 feet; two stories; cost \$12,000; plans by F. M. Curtis, Tampa. (Previously noted.)

Fla., Camilla.—City will vote on \$20,000 bond issue for city hall and sewerage. Address The Mayor.

Fla., Waycross.—Jail.—Wade county will erect jail; brick and stone; two stories; residence for jailer in front; cost \$25,000 to \$30,000; B. H. Thomas, ordinary.

La., Lake Charles.—Fire Station.—City has plans by L. C. Carter, Rigmalden, Bldg., Lake Charles, for fire station; brick; cement mortar; concrete floors; cost about \$10,000.

Miss., Aberdeen.—City will vote on \$50,000 bond issue to erect City Hall, etc. Address The Mayor. (See "Schools.")

Miss., Jackson.—City Hall, etc.—City will issue \$50,000 of bonds to erect city hall, improvements to water-works and paving. Address The Mayor.

N. C., Dunn.—Municipal Building.—Town Commissioners, C. K. Grantham, secretary building committee, will receive bids until March 6 for erection of municipal building; plans and specifications at office of Mr. Grantham, Dunn, or of Benton & Moore, architects, Wilson, N. C.

N. C., Dunn.—Board of Commissioners will receive sealed bids until March 6 covering construction of municipal building; plans and specifications now in hands of C. K. Grantham, chairman, and on file in office of architects, Benton & Moore, Wilson, N. C. (Previously noted.)

S. C., Yorkville.—Trustees of Associated Reformed Presbyterian congregation will open bids about April 15 for erection of edifice; 300 to 400 seating capacity of auditorium; brick; low-pressure steam heat; electric lighting; cost \$7000. Address J. L. Oates. (Recently noted.)

Tenn., Union City—Carnegie Library.—City

will erect \$10,000 Carnegie library. Address The Mayor.

Tex., Pecos—Jail.—Reeves county will, it is reported, erect \$15,000 jail. Address County Commissioners.

Tex., Dallas.—Colored Oak Cliff Methodist Episcopal Church will erect edifice; brick veneer; cost \$10,000; plans by George King of Dallas.

Tex., Snyder—Jail.—Seurry county will vote on March 25 \$16,000 bond issue for erection of jail. Address County Commissioners.

Va., Roanoke.—City Hall, Library, etc.—City will vote on \$350,000 bond issue to purchase site for playgrounds, library, etc.; also site for and erection of city hall; F. L. Gibbonney, city engineer. (City recently noted as to vote on \$150,000 bond issue to purchase site for city hall.)

COURTHOUSES

Ala., Talladega.—Talladega County Commissioners have plans by Charles W. Carlison, Anniston, Ala., for improvements to courthouse, including two-story addition, enlarging vault rooms in clerks' offices, veneering present structure with pressed brick, etc.

Tenn., Jacksboro.—Campbell County Commissioners will receive bids through E. H. Powers, chairman, until March 6 for erection of addition to courthouse; brick; fireproof vaults; about size of present structure; certified check for 10 per cent. amount of bid; plans and specifications at office of B. L. Lloyd, Jellico, Tenn.; E. H. Powers, Jacksboro, and R. F. Graf & Son, Knoxville, Tenn. (Commissioners recently noted as having plans prepared by these architects.)

Tex., Claude.—Armstrong county will vote May 6 on \$60,000 bond issue to erect court-house. Address County Commissioners.

Tex., Nacogdoches.—Nacogdoches county will vote April 29 on \$90,000 bond issue to erect courthouse and jail. Address County Commissioners.

DWELLINGS

Ala., Mobile.—I. Dalheimer will erect residence.

Ala., Montgomery.—B. F. Stern will open bids March 15 for erection of proposed dwellings; two, 36x43 feet; two stories; brick; hot-water heat; cost \$6500; plans by Ryan & Son, 817 Georgia Ave., Chattanooga.

Ark., Little Rock.—H. G. McFarlin, 10th and Center Sts., will open bids soon for erection of dwelling; two stories and basement; brick veneer; steam heat; electric lighting; cost \$5000; plans by Clyde A. Ferrell, 314 State Bank Bldg., Little Rock. (Recently noted.)

Ark., Pocahontas.—E. Dalton will open bids about March 15 for erection of proposed \$3000 residence; plans not yet made; structure about 50x75 feet; hot-water heat; electric lighting. (See "Machinery Wanted.")

D. C., Washington.—S. W. Augenstein, 434 H St. N. W., will erect \$8000 residence at 1357 Fairmont St.

D. C., Washington.—George H. Macdonald, 606 F St. N. W., has plans by A. S. Rich, Oxford Bldg., Washington, for \$12,000 residence in Cleveland Park.

D. C., Washington.—John M. Henderson, 1418 F St. N. W., will erect residence on Ingomar St.

Fla., Jacksonville.—W. R. DeWitt will erect two-story frame dwelling.

Fla., Jacksonville.—R. B. Archibald will erect two-story frame dwelling.

Fla., Lakeland.—J. B. Alfree has plans by Guy Platt Johnson, Lakeland, for 20 bungalows; 40x75 feet; eight rooms.

Fla., Miami.—H. H. Myers of Indianapolis, Ind., will erect residence.

Fla., Savannah.—John Gallanes will erect three one-story dwellings.

Fla., Waycross.—First Baptist congregation will erect parsonage; cost \$3500. Address The Pastor, First Baptist Church.

Md., Baltimore.—Piel Construction Co., 244 Edmondson Ave., will erect 23 16-foot dwellings on Edmondson Ave. and 16 24-foot 6-inch dwellings on Arundel Ave.; two stories; iron-spot brick; slate roofs; concrete foundations; porch fronts; cost \$2500 to \$2700 each; plans and construction by owner.

Md., Baltimore.—Clinton P. Greer, 402 N. Carey St., will erect residence at 229 Roslyn Ave.; frame; two and a half stories; 30x30 feet; broad verandas on three sides; cost \$8000.

Md., Baltimore.—F. M. Carter has plans by Stanislaus Russell, Clifton Ave. and 7th St., Baltimore, for 15 dwellings; two 16x60 feet, thirteen 14x50 feet; steam heat; gas and electric lighting; hardwood floors; vacuum cleaning plant; cost \$3000; date of opening bids not set. (Recently noted.)

Md., Baltimore.—Edward D. Keller will

erect three dwellings on Highland Ave. near 12th St.; 15x50 feet; two stories; brick; slate roof; steam heat; cost \$4500; plans and construction by owner.

Md., Baltimore.—E. W. Wnowies has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for dwelling corner Main and Oakfield Ave., Forrest Park; 30x32 feet; steam heat; gas and electric lighting; cost \$550. (Recently noted.)

Md., Baltimore.—Goldstein & Abbott, 311-11 Equitable Bldg., are having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for 21 dwellings on 21st St. and Abell Ave.; two stories; bay windows; cost \$55,000.

Md., Baltimore.—Joshua A. Bates, Jr., 410 Fidelity Bldg., will erect five dwellings recently noted; 15x60 feet each; ordinary and fireproof construction; steam heat; gas and electric lighting; cement sidewalks; cost \$15,000; construction by owner. (See "Machinery Wanted.")

Md., Baltimore.—Dr. Frederick Denhard, Light and West Sts., is having plans prepared by S. H. Moore, fourth floor 15 E. Fayette St., Baltimore, for residence on Main Ave., Forest Park; concrete; slate roof; reinforced concrete foundation.

Md., Catonsville.—Wm. G. Scarlett of Wm. G. Scarlett Company, 729-35 E. Pratt St., Baltimore, Md., is having plans prepared by Owens & Sisco, Continental Trust Bldg., Baltimore, for improvements and enlargements to residence; two and a half stories; ornamental frame and brick; slate roof; concrete foundation; cost \$4000 to \$5000.

Md., Cumberland.—Maryland Mining Co. will erect 30 dwellings at Blubaugh's crossing.

Md., Queen Anne County.—W. H. Wooten has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, Md., for 29x32-foot dwelling; frame; hot-water heat; electric lighting; cost \$4000.

Md., Roland Park.—Yates Stirling, 209 W. Lanvale St., Baltimore, Md., is considering erection of residence on Somerset Ave.; two and a half stories; brick; colonial style; cost about \$15,000.

Miss., Hattiesburg.—D. E. McInnis has plans by Wethers-Foley Company, Memphis, Tenn., for residence; cost \$25,000; size 70x104 feet; two stories and basement; fireproof construction; hot-water heat; electric lighting; day labor.

Miss., Laine.—O. H. De Lamort will erect residence.

N. C., Faith.—Dr. Peeler of Granite City, N. C., will erect residence.

N. C., Wilmington.—John D. Bellamy has plans by L. A. H. Koeth, Wilmington, for residence; colonial style; two stories and attic; frame; slate roof; interior in Southern pines; hardwood floors; hot-air heat; cost \$5000.

N. C., Winston-Salem.—J. K. Norfleet has plans by W. C. Northrup, Winston-Salem, for remodelling residence. (Recently reported.)

N. C., Winston-Salem.—Salem Baptist Church has plans by W. C. Northrup, Winston-Salem, for 10-room frame parsonage.

Okla., Oklahoma City.—S. M. Glynd has plans by William A. Wells, Oklahoma City, for residence; dark-red brick; stone quoins around windows; tile roof; deep porch across entire front; porte cochere on side for driveway; 58x51 feet; two stories and basement; steam heat; mahogany and oak interior finishings; Dutch colonial style; laundry, boller-room, etc., in basement; garage to match; cost \$40,000.

S. C., Greenwood.—South Main Street Baptist Church has purchased site and will erect parsonage. (See "Churches.")

S. C., Yorkville.—Yorkville Baptist congregation will erect parsonage. Address The Pastor, Yorkville Baptist Church.

Tenn., Chattanooga.—W. H. Holmes (address care of Chickamauga Quarry & Construction Co.) has purchased site and will erect dwelling; two stories and basement; seven rooms; brick; gas and electric lighting; cost \$3000.

Tenn., Chattanooga.—J. L. Hughes (address care of Newson Hosiery Co.) has purchased site and will erect dwelling to cost \$5000 to \$10,000.

Tenn., Chattanooga.—C. S. Stewart will open bids March 15 for erection of 38x50-foot dwelling; ordinary construction; stucco and metal lath; hot-water heat; cost \$14,000; plans by Ryan & Son, 817 Georgia Ave., Chattanooga. (Recently noted.)

Tenn., Chattanooga.—H. H. Ward of Mexico City, Mexico, and associates are reported to erect 12 to 20 bungalow-style dwellings.

Tenn., Chattanooga.—L. M. Russell, 221 Georgia Ave., St. Elmo, Tenn., will expend

\$700 to erect dwelling on Bailey and Highland Aves.; seven rooms; brick and stucco; hot-water heat; gas and electric lighting; plans by C. E. Bearden, Chattanooga, Tenn. (Previously noted.)

Tenn., Chattanooga.—Mrs. Nathan Frank will receive bids for erection of dwelling on 4th St.; brick; stone trimmings; metal roof; cost \$5000. (Previously noted.)

Tenn., Cleveland.—Tate Hall has plans by J. G. Barnwell and Clarence T. Jones, Chattanooga, for one-and-a-half-story frame and brick dwelling; brick foundation; hot-air heat; gas and electric lighting; cost \$3000.

Tenn., Johnson City.—R. C. Hunter will receive bids at once for erection of dwelling; red brick; concrete foundation; slate roof; steam heat; cost \$18,000; plans by R. H. Hunt, James Bldg., Chattanooga, Tenn.

Tenn., Knoxville.—Hugh G. Burke will expend \$3000 to erect dwelling; 42x60 feet; cost of heating, \$847; electric wiring; plans by William H. Gildard, 605 Prince St., Knoxville; subcontracts let. (Recently noted.)

Tenn., Nashville.—Home Building & Manufacturing Co. incorporated with \$30,000 capital stock by J. H. Wade, R. D. Hardby, James Kerr and others; will erect dwellings, etc.

Tex., Austin.—Mrs. Fulton is having plans prepared for frame-stucco dwelling; cost \$7000.

Tex., Austin.—J. W. Hoopes will erect dwelling; frame-stucco; cost \$7000; construction begun.

Tex., Dallas.—J. R. Eldridge will erect two dwellings; eight rooms; two stories; wood construction; cost \$4000 and \$3500.

Tex., Gunter.—W. J. Cox of Venus, Tex., will erect residence.

Tex., Houston.—Henry Teague will erect residence in Magnolia Park.

Tex., Houston.—O. A. Coons will erect 10 bungalows and two-story dwellings; construction begun.

Tex., Webster.—Houston Orchards Co., J. S. Kendall, president, Houston, Tex., contemplates erection of several dwellings in connection with development of 6500 acres of land. (See "Land Developments.")

Va., Casanova.—Grace Episcopal Church, Rev. D. C. Mayers, rector, will rebuild rectory recently reported burned; two stories; 35x45 feet; cost \$2200. (See "Machinery Wanted.")

Va., Richmond.—Mrs. M. E. Perkins will erect two-story brick tenement (two dwellings); cost \$4800.

Va., Richmond.—Mrs. R. B. McDowell will erect detached two-story frame store and dwelling; cost \$3400.

Va., Richmond.—Dora E. and L. R. Allen will erect two-story brick dwelling; cost \$5000.

Va., Salem.—L. O. Brightbill will erect eight-room residence recently noted; mill construction; hot-water heat; electric lighting; cost \$2500; architect not employed. (See "Machinery Wanted.")

GOVERNMENT AND STATE

Ky., Frankfort—Penitentiary.—Bids will be received at office of State Board of Prison Commissioners until noon February 20 for remodeling of new shop building in Frankfort penitentiary and converting same into dining-room and kitchen. Plans and specifications for said work may be seen at Frankfort penitentiary or office of Rows & Giansini, architects, Lexington, Ky.; bids to be addressed to Ell H. Brown, Jr., chairman Board of Prison Commissioners.

Md., Sykesville—Hospital.—Managers of Springfield State Hospital for the Insane approved plans and specifications for power-house and two additional cottages; latter will accommodate about 200 persons; Dr. J. Clement Clark, superintendent.

N. C., Lexington—Postoffice.—Ambrose B. Stannard of New York is lowest bidder at \$45,000, if limestone is used, and \$46,500 if sandstone, for erection of U. S. postoffice; James Knox Taylor, supervising architect, Treasury Department, Washington, D. C. (Recently mentioned as inviting proposals.)

Tex., Galveston—Immigration Station.—M. C. Bowden of Galveston is lowest bidder, it is reported, on erection of immigration station on Pelican Island; Alfred Hampton is inspector in charge. (Recently mentioned as inviting proposals.)

Tex., Watahachie—Postoffice.—Fred Tarry & Son, Leavenworth, Kans., are lowest bidders at \$45,750 for erection of U. S. postoffice; James Knox Taylor, supervising architect, Treasury Department, Washington, D. C. (Call for bids recently noted.)

HOTELS

Fla., St. Petersburg.—Snell & Hamlett will erect hotel. (See "Land Developments.")

Ga., Cordele.—O. M. Grady, superintendent of Georgia Southern & Florida Railroad, Macon, Ga., will expend \$30,000 for improving Suwanee Hotel.

Ga., Savannah.—Forest City Hotel Co. (W. M. and F. R. Durden) plans erection of commercial hotel; 150 bedrooms; fireproof; eight or nine stories; private bath to every room; cost about \$400,000.

Ky., Louisville.—Seelbach Realty Co. plans erection of 10-story annex to Seelbach Hotel; 150 sleeping rooms; cost, including furnishings, \$250,000; will also erect four-story concrete power building; cost \$50,000.

Ia., Monroe.—W. A. Stanton, architect, 501 First National Bank Bldg., Vicksburg, Miss., advises that bids will be received at Monroe Hotel March 1 (extended date) for erection of annex to Hotel Monroe. (Recently described.)

Ia., New Orleans—Clubhouse.—Young Men's Gymnastic Club will remodel building as club and apartment building; improved structure will be 100x160 feet; four stories; third and fourth floors for apartments, each room to have private bath; Improvements will also be made to present bath system; cost about \$150,000; plans are being prepared by Toledoans & Wogan of New Orleans.

Ia., Shreveport.—A. W. Black & Son of St. Louis, Mo., will erect eight-story hotel on Millam St.

Md., Baltimore.—Charles W. Greeble, proprietor of Hotel Lexington, Holliday and Lexington Sts., has plans by John Freund, Jr., 210 E. Lexington St., Baltimore, for remodeling dining-room of hotel; plans in part call for construction of mezzanine floor for orchestra, removing wall separating dining-room and cafe; cafe and dining-room to be separated by swinging beveled-glass doors; paneled walls; east-end walls mirrored; estimated cost \$12,000.

Miss., Hattiesburg.—Greene County Lumber Co., main office, Lucedale, Miss., will erect hotel to replace structure recently reported burned; loss \$3000.

Mo., Kansas City.—Hotel Cosby, Joseph D. Cosby, proprietor, will erect hotel 50x16 feet; fireproof construction; steam heat; gas and electric lighting; cost \$250,000; contemplates letting contract in about 18 months. (Recently noted.)

N. C., Raleigh.—B. H. Griffin and associates leased Yarborough House, and will expand \$50,000 for improvements.

N. C., Walkertown.—Ed. Linville will erect 13-room hotel.

S. C., Chester.—T. L. Eberhardt plans, it is reported, erection of hotel as annex to Carolina Inn.

Tex., Melford (not a postoffice).—J. O. Galbraith, Hillsboro, Tex., will erect 40x72-foot hotel; two stories; 22 rooms; ordinary construction; cost \$6000; plans and construction by owner.

Tex., Mineola.—M. A. Bailey has plans by B. C. Leake, Fort Worth, Tex., for 50-room hotel; 113x45 feet; brick, with steel partitions; steam heat; electric lighting; cost \$16,000. (Recently noted.)

Tex., Webster.—Houston Orchards Co., J. S. Kendall, president, Houston, Tex., contemplates erection of hotel in connection with development of 650 acres of land. (See "Land Developments.")

Va., New Castle.—Hotel Bel Air Co. is name of company to be incorporated and to make improvements to \$65,000 hotel (recently noted purchased by Mrs. J. P. Caldwell, T. H. Howerton and B. R. Caldwell); capacity 100; improvements to include painting, installation of lighting plant and piping from Craig Mineral Springs to hotel; will require 52,000 feet of $\frac{1}{2}$ and 1-inch pipe; also repair present 1½-inch pipe line. (See "Machinery Wanted.")

Va., Richmond.—William Rueger telegraphs Manufacturers Record that he will erect hotel; 53x105 feet; 10 stories; fireproof steel construction; steel frame arranged to permit erection of ell; electric plant, refrigerating apparatus, etc., in sub-cellars; cost \$200,000; temporary location, 24 N. 9th St.

W. Va., Wheeling.—John L. Boswell is reported as interested in erection of 10-story hotel; fireproof.

MISCELLANEOUS

Fla., Sarasota—Skating Rink and Amusement Hall.—Owen Bruns and associates will erect skating rink and amusement hall. (See "Miscellaneous Construction.")

Ky., Lexington.—Gentry & Thompson will rebuild stock yards buildings reported

burned; new sheds will accommodate about 500 horses and mules.

Ky., Louisville—Parish-house.—St. Augustine's congregation will erect brick parish-house to cost \$5000. Address The Pastor, St. Augustine's Church. (See "Churches.")

Ky., Paducah—Clubhouse.—Paducah Chess, Checker and Whist Club, 6th and Jefferson Sts., is considering erection of gymnasium, 75x65 feet, to cost about \$4000.

Mo., Columbia—Stadium.—University of Missouri has plans by D. C. McVay of athletic committee, Trenton, Mo., for stadium to have seating capacity of 10,000. (Recently mentioned.)

Md., Baltimore—Lunch Room.—Victor Papineau will have plans prepared by Theodore Wells Pletsch, American Bldg., Baltimore, to remodel buildings at 408-411 E. Baltimore St. as lunch room; estimators are John Hiltz & Son Co., 3 Clay St.; George Bunnell & Son, 35 St. Paul St.; Edward Pile, 222 Perry St.; Charles W. Simpson & Co., 115 E. Lexington St.; Milton C. Davis, 15 E. Fayette St., all of Baltimore.

Miss., Jackson—Clubhouse.—Mississippi Club will erect clubhouse to cost \$35,000 to \$40,000.

Mo., St. Louis—Hospital.—Trustees of Barnes Hospital have plans by Theo. C. Link, Carleton Bldg., St. Louis, for hospital to accommodate 240 beds; fireproof construction; further details not available.

N. C., Rockingham—Hospital.—W. I. Everett is interested in erection of hospital and sanatorium.

N. C., Winston-Salem—Cafe.—W. C. Nortrup, Winston-Salem, has plans for remodeling Phoenix Cafe; plate-glass front and about 79 feet of mirrors around wall.

Okl., Tulsa—Business Block.—E. L. Fox is having plans prepared by J. P. Curtiss of Tulsa for business block; two stories; 50x140 feet.

S. C., Columbia—Clubhouse.—Woman's Building Co. incorporated with \$40,000 capital stock by Mrs. Annie E. Simpson, Mrs. Margaret E. Lipscomb and others to erect building to be used by City Federation of Women's Clubs. Mrs. W. B. Burney, president. (Recently mentioned as having purchased site \$161,14 feet and to have plans prepared by W. A. Edwards of Edwards & Walter, Atlanta, Ga., for clubhouse.)

Tenn., Columbia—Hospital.—King's Daughters contemplate erecting hospital.

Tex., Corpus Christi—Clubhouse.—Yacht and Athletic Club will erect two-story clubhouse to contain gymnasium, reading-rooms, etc.

Va., Lynchburg.—D. T. Edward will erect residence; frame; cost \$3500; size 30x46 feet; ordinary construction; vapor heat; electric lighting; plans by McLaughlin & Johnson, Lynchburg; bids opened. (See "Machinery Wanted.")

Va., Lynchburg—Orphanage.—Presbyterian Orphanage rejected bids for erection of three buildings (executive building and two dormitories), and is having plans revised by Lewis & Burnham of Lynchburg; executive building will be 86x76 feet; cost \$15,000; dormitories 22x64 feet each; cost \$11,000 each; buildings will be of ordinary construction; central heating plant; electric lighting; bids opened March 1. (Recently mentioned.)

Va., Norfolk—Rest House.—J. D. Anders of Norfolk is lowest bidder at \$2399 for erection of rest house at Forest Lawn Cemetery; Arnold Eberhard of Norfolk prepared plans. (Recently mentioned.)

Okla., Muskogee—Board of Education will receive bids until February 28 for erection of brick and reinforced concrete school; bids to be submitted for building complete, with deduction for heating, plumbing and wiring; separate bids for latter; certified check for \$1000 with general contract bids, and for less than general contract checks for 5 per cent. of bid; plans and specifications at office of Mr. Ernest as above.

Okla., Muskogee—Board of Education, H. M. Chestnut, president, will soon award contract for erection of two one-story brick schools.

Okla., Shawnee—Benedictine Fathers have plans by Victor Kluetho, St. Louis, Mo., for 200x90-foot college building; fireproof construction; steam heat; electric lighting; hand elevator; cost \$100,000. (Previously noted to erect a building.)

Tex., Dickens—Board of Trustees, Charles Jaye, president, will receive bids until February 25 for erection of two-story-and-basement school; plans and specifications at office of Elmer G. Withers, Stamford, Tex., or may be had on deposit of \$15. (City recently noted to have plans ready for bids about February 10.)

Tenn., Morristown—Morristown Normal College, J. S. Hill, president, has plans for school and administration building; three stories; brick and stone; brick, interior woodwork, doors and windows manufactured at college; cost \$25,000.

Tenn., Shelbyville—Town will issue \$20,000 of bonds to erect highschool building. Address Town Clerk.

depot at Corbin. (Recent notice incorrect.)

Miss., Laurel—New Orleans & Northeastern Railroad Co., D. D. Curran, general manager, New Orleans, La., will erect depot; plans not yet completed.

Tex., Dallas—Reports state union passenger station will be erected by Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex.; Missouri, Kansas & Texas Railway, A. M. Acheson, acting chief engineer, Dallas, Tex.; St. Louis & San Francisco Railroad, G. Jonah, chief engineer construction, St. Louis, Mo.; Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill.; Trinity & Brazos Valley Railway, J. W. Robins, general manager, Houston, Tex., and St. Louis Southwestern Railway of Texas, J. W. Maxwell, general manager, Tyler, Tex.

W. Va., Welch—Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va., will consider, it is reported, erection of depot.

SCHOOLS

Ark., Helena—Directors of Helena School District No. 1 plan erection of \$75,000 school.

D. C., Washington—Cuno H. Rudolph, John A. Johnston, Wm. V. Judson, Commissioners, D. C., will receive bids until February 28 for erection of eight-room school on Farragut St., between 13th and 14th Sts.; cost \$60,000; plans, blank proposal forms and information from chief clerk of Engineer Department, Room 427 District Building, or may be had on deposit of \$10.

Fla., Dade City—Pasco County School Board will open bids March 6 for erection of brick school.

Ga., Atlanta—Georgia School of Technology, K. G. Matheson, president, has plans by B. F. Dillon of Morgan & Dillon, Atlanta, for Young Men's Christian Association building; three stories and basement; brick and stone; 75x140 feet; basement half underground and equipped with shower baths, bowling alleys, etc.; stained-glass windows; seating capacity 350; cost \$75,000.

Ga., Cave Spring—Georgia School for Deaf Mutes will erect laundry; 40x90 feet. (See "Miscellaneous Enterprises.")

Ga., Dalton—Board of Education will erect \$10,000 school in North Dalton, remodel School street school at cost of \$5000 and expend \$10,000 to remodel Fort Hill school.

Ga., Macon—Wesleyan College, W. N. Ainsworth, president, plans expending \$25,000 for erection of gymnasium building.

La., Jena—City is planning erection of \$20,000 school; J. D. Manchester, chairman of committee.

Miss., Aberdeen—City will vote April 1 on \$50,000 bond issue to erect school for negroes, for city hall and for paving. Address The Mayor.

Miss., Brookhaven—Whitworth College plans erection of pressed brick auditorium; cost \$10,000 and other buildings to cost \$15,000.

Mo., Kansas City—Rockhurst College, John McQueeny, secretary of committee, Lillis Bldg., plans completion of building at cost of \$100,000 under construction.

Okla., Medford—C. N. Ernest, clerk School District, will receive bids until February 28 for erection of brick and reinforced concrete school; bids to be submitted for building complete, with deduction for heating, plumbing and wiring; separate bids for latter; certified check for \$1000 with general contract bids, and for less than general contract checks for 5 per cent. of bid; plans and specifications at office of Mr. Ernest as above.

Okla., Muskogee—Board of Education, H. M. Chestnut, president, will soon award contract for erection of two one-story brick schools.

Okla., Shawnee—Benedictine Fathers have plans by Victor Kluetho, St. Louis, Mo., for 200x90-foot college building; fireproof construction; steam heat; electric lighting; hand elevator; cost \$100,000. (Previously noted to erect a building.)

Tex., Dickens—Board of Trustees, Charles Jaye, president, will receive bids until February 25 for erection of two-story-and-basement school; plans and specifications at office of Elmer G. Withers, Stamford, Tex., or may be had on deposit of \$15. (City recently noted to have plans ready for bids about February 10.)

Tenn., Morristown—Morristown Normal College, J. S. Hill, president, has plans for school and administration building; three stories; brick and stone; brick, interior woodwork, doors and windows manufactured at college; cost \$25,000.

Tenn., Shelbyville—Town will issue \$20,000 of bonds to erect highschool building. Address Town Clerk.

Tex., Algoma.—City plans erection of \$10,000 school. Address The Mayor.

Tex., Charlie.—City is considering voting on \$15,000 bond issue to erect school. Address The Mayor.

Tex., Farmersville.—City voted \$20,000 bond issue for school improvements. Address The Mayor.

Tex., Farmersville.—City voted \$20,000 bond issue to erect high-school building; brick; two or three stories. Address The Mayor.

Tex., Nederland.—Nederland School District voted \$20,000 bond issue to erect brick school. Address District School Trustees. (Recently noted.)

Tex., Jourdanton.—City is planning to erect eight-room school; cost \$20,000 to \$25,000. Address The Mayor.

Tex., Kyle.—City voted \$8000 bond issue to erect school. Address The Mayor.

Tex., Teague.—City will vote March 6 on \$10,000 bond issue to erect brick school. Address The Mayor.

Tex., Tom Bean.—Tom Bean Independent School District voted \$3000 bond issue to erect school. Address District School Trustees.

Tex., Trinity.—Trinity Independent School District, J. Y. Renfro, secretary, has not selected architect to prepare plans for two-story school building; eight rooms; brick, stone and wood; heating and lighting not decided; cost \$12,000. (Recently noted.)

STORES

Ark., Little Rock.—Mrs. A. Schrader will erect two-story brick building; cost \$12,900.

Ala., Maplesville.—R. H. Martin will rebuild store; 25x70x80 feet; brick; cost \$2000; will let contract locally. (Recently reported burned.)

Ala., Mobile.—F. S. Frederic will erect three-story store building.

Ala., Mobile.—S. H. Kress & Co., 396 Broadway, New York, will erect store building; cost \$40,000.

Fla., Jacksonville.—R. A. Drawdy, Jr., will erect two-story brick addition to building on Jackson St.; 23 feet 6 inches by 30 feet.

Fla., Jacksonville.—Florida Ice & Coal Co. will erect commercial building; one-story; frame, brick and iron; 61x200 feet.

Fla., Perry.—Blair & Hinley will erect \$10,000 brick store.

Fla., St. Petersburg.—H. A. Thompson will erect business building; 32x70 feet; ceiling 11½ feet high; concrete block foundation; frame superstructure; cost \$2500; day labor; construction begun.

Ga., Savannah.—M. Wilensky and Joseph Lichtenstein will erect three stores with hall above; concrete; truss roof; cost \$15,000.

Ky., Earlington.—Tappan & Gardner are ready to receive bids on erection of two-story brick store building; 22x50 feet; fireproof construction; hot-water heat; electric lighting; cement sidewalks; cost \$4000. (Recently noted.)

La., New Orleans.—Equitable Rent Estate Co., Ltd., will erect five-story business building to be leased by Grant Furniture Co.

Miss., Louisville.—J. L. Davis will receive bids on erection of 30x100-foot brick store building; plate-glass front.

Miss., Meridian.—C. P. Renfroe will erect 32x75-foot store building; mill construction; brick walls; electric lighting; cost \$3500; plans by owner; day labor. (Recently noted.)

Miss., Meridian.—S. H. Floyd will not at present erect business building recently noted.

Mo., St. Louis.—May Department Stores Co. purchased Wm. Barr Dry Goods Co.; plans to erect building at 6th, 7th, Olive and Locust Sts.; 21 stories; eight lower floors for department store; upper floor for offices; 18 express elevators; moving stairways; vacuum cleaning system; new ventilating system; telephone system; basement subway for handling freight; construction by halves; present structure not to be demolished until completion of first unit; cost \$6,000,000 to \$7,000,000.

Mo., St. Louis.—Regal Shoe Co., 109 Summer St., Boston, Mass., will erect store building; steel and iron up to second floor; above that of steel and concrete; sloping Dutch roof; second story will not come down flush with top of windows; 85 continuous feet of display window; electric sign 30x50 feet; magnet control system passenger elevator.

Mo., St. Louis.—Rudolph C. Schlegel will erect two-story brick store and apartment building.

N. C., Charlotte.—T. W. Wade will probably erect business building.

N. C., Wadesboro.—J. D. Horne will rebuild store; plans not determined. (Recently reported burned.)

N. C., Walkertown.—J. R. Ham will erect business building; construction begun.

Okla., Oklahoma City.—Allen Bentley will erect three-story brick store building; cost \$5000.

S. C., Coronaca.—W. A. Collins will erect two-story brick business building; cost \$6000 to \$10,000.

S. C., Greenwood.—W. A. Collins of Coronaca, S. C., will erect brick store on Maxwell Ave.; 50x100 feet.

S. C., Hartsville.—E. E. Carnes will erect business building; two stories; 25x75 feet.

Tenn., Memphis.—R. E. Lee, Misses Ora B. and Rowena Lee will rebuild business building; six stories and basement; 37x145½ feet; passenger and freight elevators; plans by Hanner & Cairns, Memphis; further information may be had of B. G. Lee. (Recently reported burned.)

Tex., Angleton.—G. W. Gayle will erect business building; two stories; brick; 50x70 feet.

Tex., Cleburne.—Olive Lodge No. 31, Knights of Pythias, will erect \$6000 to \$8000 business building and castle hall. (See "Association and Fraternal Buildings.")

Tex., Dallas.—H. J. Cohn will erect business building; three stories; brick; 50x99 feet.

Tex., Dallas.—Rosenbaum Bros. will erect business building; three stories; brick; frontage 50 feet.

Tex., Garland.—J. M. Naylor & Son will erect 36x80-foot business building.

Tex., Garland.—M. D. Williams will erect 26x80-foot business building.

Tex., Garland.—T. N. Hickman will erect 26x80-foot and 26x90-foot business building; second floor will be used as theater.

Tex., Lovelady.—Robert W. Stepper will erect one-story brick business building; about 25x76 feet.

Tex., Lovelady.—Kennedy Bros. will erect addition to building; brick construction; about 25x76 feet.

Tex., Lovelady.—Robert E. Porter will erect two-story brick business building; about 25x76 feet.

Tex., Lovelady.—G. L. Murry will erect one-story brick building; about 25x76 feet.

Tex., Mercedes.—J. E. Buckley is proceeding with erection of 50x85-foot store building; S. P. Silver, Mercedes, supervising construction; will be ready for occupancy by April 1. (Recently noted.)

Tex., Mt. Pleasant.—Libby Wholesale Grocery Co. incorporated with \$30,000 capital stock; will erect store building; brick construction.

Tex., Taylor.—R. C. Briggs will erect two-story store building.

Tex., Brownsville.—Jose and Manuel Beslerio will erect business building; three stories; buff pressed brick; cement trimmings; 100x50 feet; plate-glass front; cost \$25,000; plans by M. E. Tracy, Brownsville.

Tex., Madisonville.—W. A. Yarbrough will erect 28x100-foot store building, recently noted under "Dwellings;" ordinary construction; electric lighting; stoves; cost \$2500; will let separate contracts. See "Machinery Wanted."

Va., Richmond.—Mrs. R. B. McDowell will erect store and dwelling. (See "Dwellings.")

W. Va., Welch.—Strother, Taylor & Taylor will receive bids until February 25 for erection of business building to replace burned structure; two stories; brick; hot-air heat; electric lights; cost \$5000.

THEATERS

Fla., Jacksonville.—Montgomery Amusement Co. incorporated with \$100,000 capital stock by Frank T. Montgomery, H. C. Dorsey and John T. Alsop, Jr.; will establish moving-picture theaters.

Fla., Ybor City, Ind. Sta., Tampa.—Italian Society La Unione will erect theater and club building. (See "Association and Fraternal Buildings.")

Ga., Fitzgerald.—Henry Burkhardt will erect theater; 73x140 feet; two galleries; stage 40x70 feet.

La., New Orleans.—Willie J. Roussel and associates have plans by Drago & Bear, New Orleans, for Venetian opera-house at Spanish Fort; 60x200 feet; seating capacity 1500; wide stairway will lead into foyer; auditorium proper surrounded by spacious arch windows; facade stucco and ornamental metal work; fireproof; Italian garden extending about 1000 feet into Lake Pontchartrain.

Mo., St. Louis.—Rudolph C. Schlegel will erect two-story brick store and apartment building.

N. C., Charlotte.—T. W. Wade will probably erect business building.

train; will have pergolas, niches, nooks and bridges; cost \$25,000.

La., New Orleans.—John Alexander and others are having plans prepared by Andry & Bendersnagle, New Orleans, for theater at St. Charles and Napoleon Aves.; plans include roof or Italian garden; cost \$50,000 to \$75,000.

Md., Baltimore.—West End Theater Co. is having plans prepared by Paul Emmart, 210 W. Fayette St., Baltimore, for moving-picture theater at Frederick Ave. and Gilmore St.; two stories; reinforced concrete; 56x108 feet.

Okla., Oklahoma City.—Oklahoma State Fair Association will erect theater; 80x10 feet; frame construction; seating capacity 1600; cost \$10,000. (See "Miscellaneous Enterprises.")

Tenn., Chattanooga.—Fletch M. Catron is interested in organization of company to erect \$100,000 theater.

Tenn., Chattanooga.—Fletch Catron and Will R. Albert will erect vaudeville theater; four stories; frontage 70 feet; fireproof; four exit doors on each side; stage 70x40 feet wide; proscenium opening 35x35 feet; seating capacity 1600; cost \$100,000.

Tenn., Memphis.—Lyceum Theater Co. incorporated with \$50,000 capital stock by Clarence Weis, Fred Weis, I. Mendel and others.

Tex., Galveston.—J. G. Jorgensen is interested in erection of vaudeville theater to seat 1200.

Tex., Garland.—T. N. Hickman will erect business building; second floor to contain theater. (See "Stores.")

Tex., McKinney.—Benevolent Protective Order of Elks plans erection of two-story opera-house and lodge building.

Tex., Weimar.—Charles Fahrenthold purchased block of one-story business buildings on Postoffice St. and contemplates improvement for opera-house.

WAREHOUSES

Ala., Mobile.—Rolf Seberg Ship Chandlery Co. has plans by Stone Bros., 201 Pollock

Bldg., Mobile, for alterations and addition to warehouse building; cost \$5000; bids closed.

La., Garfield.—Garfield Oil Mills will rebuild warehouse recently reported burned.

Ga., Savannah.—Savannah Cotton Mills will erect fireproof warehouse, 46x152 feet.

Ga., Valdosta.—Robert Black and Wilburn McKey contemplate, it is reported, erection of two or three warehouses.

Md., Baltimore.—General Warehousing Co. incorporated with \$300,000 capital stock by Albert G. Ober, Albert G. Ober, Jr., and Tunstall Smith.

Miss., Hattiesburg.—Farmers' Union Warehouse Co. will erect warehouse.

Mo., St. Louis.—Howett Manufacturing Co. contemplates erection of three-story-and-basement warehouse and factory building. (See "Miscellaneous Factories.")

Tenn., Nashville.—American Bread Co. will erect warehouse; plans by B. J. Hodge; bids opened.

Tenn., Nashville.—Standard Oil Co. (main offices, 26 Broadway, New York) will, it is reported, erect warehouse and stable; T. L. Herbert & Sons of Nashville have contract to furnish brick.

Tex., Pecos.—Pecos Mercantile Co. will erect warehouse; construction begun.

Tex., Pecos.—Pecos Mercantile Co. will, it is reported, erect addition to warehouse; cost \$5000.

Va., Norfolk County.—Burton's Point Wharf and Warehouse Corporation incorporated with \$15,000 capital stock; Fergus Reid, president; J. W. Wilcox, vice-president; Theodore L. Bogert, secretary-treasurer, all of Norfolk, Va.

Va., Norfolk.—Lewis-Hubbard-Slack Company (branch of Lewis, Hubbard & Co., Charleston, W. Va.) contemplates erecting warehouse.

W. Va., Petersburg.—Union Tanning Co. contemplates, it is reported, erection of concrete building for storing hides, leather, etc.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

W. Va., Parkersburg.—John Walker awarded contract to W. Bateson Company, Parkersburg, for erection of two-story brick store and apartment building; cost \$4000.

BANK AND OFFICE

Ala., Dothan.—Southern Express Co. awarded contract for erection of office and storage building.

Ark., Little Rock.—Exchange National Bank will remodel first floor of Masonic Temple, 17th and Main Sts., for banking purposes; present door will be replaced with one of ornamental iron and plate glass; row of iron columns extending down center of building; seating will extend around entire room; English-veined Italian statuary marble will be used; fixtures and partitions to be of mahogany; bronze will also be used in interior decorations; tile floors; contract for interior work awarded to Thalman & Reed of Little Rock; contract for fixtures, costing about \$30,000, has also been awarded.

Md., Walbrook, Station F, Baltimore.—Chesapeake National Bank, North Ave. and 10th St., awarded contract to C. C. Watts, 113 W. Hamilton St., Baltimore, to erect bank building on North Ave.; one story; gray pressed brick with Indiana limestone trimmings; triangular shape; 16x50x61 feet; tile floors; Flemish oak interior finish with verde antique marble wainscoting; hand-wrought iron grillwork; boardroom and cashier's office paneled oak finish; steam heat; electric and gas lights; cost \$10,000; plans by Alfred Cookman Leach, 323 N. Charles St., Baltimore. (Recently mentioned.)

S. C., Columbia.—J. W. McCormick awarded contract to Wise Granite Co. for construction of office building to cost \$17,000. (See "Machinery Wanted.")

CHURCHES

Ala., Mobile.—Dauphinway Baptist Church awarded contract to Hellams & McCullly, 325 S. Ann St., Mobile, for erection of edifice. (See "Machinery Wanted.")

Tenn., Chattanooga.—Trinity Methodist Episcopal Church South awarded contract to G. S. McNabb, 3d and Cherry Sts., Chattanooga, for erection of addition to edifice; cost \$5000; plans by D. V. Stroop, Chattanooga. (Recently noted.)

W. Va., Bluefield.—W. T. Owens, Bluefield, has original contract and will complete auditorium of edifice begun several years ago; 58x80 feet; two stories and basement; brick; hot-air heat; electric lighting; granolithic sidewalks; cost of completed edifice \$30,000; plans by H. H. Huggins, Roanoke, Va. (Recently noted.)

CITY AND COUNTY

Md., Cumberland.—City Hall.—City awarded contract at \$70,000 to Henry L. Brown, Philadelphia, Pa., for erection of city hall; two stories and basement; 88x90 feet; fireproof; steam heat; electric lights; prism lights; copper cornice; plans by Holmboe & Laferty, Clarksburg, W. Va. (Mr. Brown recently noted as lowest bidder.)

COURTHOUSES

La., Lake Charles.—Calcasieu Parish Police Jury awarded contract at \$156,792 to J. E. Gibson Construction Co., Tulsa, Okla., for erection of courthouse; brick; terra-cotta trimmings; plans and specifications by Farrow & Llavadals, New Orleans, La. (Parish recently noted to receive construction bids until February 17.)

DWELLINGS

Ark., Little Rock.—W. E. Cox awarded contract to Lom Loveless, Little Rock, for erection of dwelling; 35x57 feet; ordinary construction; frame, with brick veneer; hot-water heat; electric lighting; cost \$6500; plans by J. W. Whitehead, Little Rock.

D. C., Anacostia.—G. S. King, 389 Rhode Island Ave. N. W., awarded contract to Wedding & Pearson, 30 Pleasant St., Anacostia, D. C., for three two-story brick dwellings at 1327-31 Valley St. S. E.; plans by John R. Cadle, 24 W. St., Anacostia, D. C.; size of residences, 31x60 feet; ordinary construction; furnace heat; gas lighting; cost \$600. (See "Machinery Wanted.")

D. C., Washington.—J. S. Gruver, Union Trust Bldg., awarded contract to Thrift Building Co., Union Trust Bldg., Washington, for erection of one-story frame dwelling at 4506 8th St. N. W.; cost \$3000; plans by J. C. Gruver, Washington.

D. C., Washington.—Joseph Taber Johnson, 926 Farragut Sq., awarded contract to James T. Kenyon, 729 15th St. N. W., Washington, for remodeling residence at 924 17th St. N. W.; will replace brick front with stucco. (Recently noted.)

install new windows, etc.; plans by Harding & Upman, 720 15th St. N. W., Washington.

D. C., Washington.—H. W. Hawkins will erect nine dwellings; two stories and cellar; brick; hot-water heat; electric lighting; cost \$18,425; plans by A. H. Beers, 1342 New York Ave. N. W., Washington; contract recently noted awarded to Dowd Bros., 1325 G St. N. W., Washington. (See "Machinery Wanted.")

Fla., St. Augustine.—F. W. Bodley awarded contract for erection of residence; eight rooms; shingle; concrete foundation; plans by Fred A. Henderich, St. Augustine.

La., Natchitoches.—Episcopal congregation awarded contract to W. J. Getry, Natchitoches, for erection of rectory; bungalow style.

Md., Baltimore.—L. Di Stefano, Gay and Exeter Sts., awarded contract to J. S. Morgan Building Co., 1300 S. Charles St., Baltimore, for erection of seven residences on Park Heights Ave.; pressed brick; porch fronts; two stories; 15x50 feet; hot-air heat; electric lights; cost \$15,000; plans by Jacob F. Gerwig, 210 E. Lexington St., Baltimore. (Recently noted.)

Md., Baltimore.—Walter L. Westphal, 1700 N. Bond St., has plans and awarded contract to S. A. Berstermann, 36 N. Potomac St., Baltimore, for erection of 54 dwellings; 14x70 feet; ordinary construction; furnace; cost \$60,000. (Recently noted.)

Md., Baltimore.—Howard V. Harvey, Baltimore and North Sts., awarded contract to H. W. Johnson, Windsor Mills Rd., between 14th and 15th Sts., Baltimore, for erection of residence on Park Heights Ave.; two and a half stories; ornamental frame and brick; concrete foundation; slate roof. (Recently noted.)

Md., Baltimore.—B. M. Oberdorfer, 1821 N. Payson St., awarded contract to W. A. Foreman, 1919 Kennedy Ave., Baltimore, for erection of bungalow on Duvall Ave. between 12th and 13th Sts.; one story; ornamental frame; slate roof; concrete foundation; cost \$3000; plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore.

Md., Baltimore.—Henry B. Reinhart, 2638 N. Calvert St., awarded contract to Gus Stohr, 2051 Pennsylvania Ave., Baltimore, for erection of two-and-a-half-story frame residence on Falls Rd. near Belvidere Ave.; slate roof; 30x38 feet; hot-water heat; electric lights; cost \$7500.

Md., Baltimore.—Wm. F. Beiswanger, 401 Homestead St., awarded contract to Geo. A. Gebb, 321 Homestead St., Baltimore, for erection of eight dwellings at Gorsuch Ave. and Polk St.; two stories; brick; 14-foot frontage; hot-water heat; electric lights; cost \$15,000; plans by E. O. Lohmeyer, 1639 W. Lanvale St., Baltimore.

Md., Baltimore.—W. F. Beiswanger, 404 Homestead St., awarded contract to George A. Gebb, 321 Homestead St., Baltimore, for erection of proposed dwellings; seven, 14x51 feet each; mill construction; plans by E. O. Lohmeyer, Belmont Heights, Baltimore, Md.

Md., Baltimore.—James L. Donohue, 411 E. 22d St., is reported to have awarded contract to Edward J. Donohue, 212 Union Trust Bldg., Baltimore, for erection of 11 two-story dwellings on 23d St. between Montebello and Cokesbury Aves.; iron-spot brick; slate roofs; 14x44 feet; cost about \$2,000; plans by F. E. Beall, 213 St. Paul St., Baltimore.

Md., Baltimore.—John J. Fields awarded contract to R. B. Mason, 210 E. Lexington St., Baltimore, for remodelling 16x26-foot dwelling; hot-water heat; electric lighting; cost \$2800.

Md., Chattolance.—Joseph S. Hopkins awarded contract to John Cowan, 106 W. Madison St., Baltimore, for erection of residence at the Briars; 52x70 feet; two and a half stories; ornamental frame; brick and stone; cost \$10,000 to \$12,000.

Md., Lower Marlboro.—Mrs. Lucy W. Diebert awarded contract to C. F. Spicknall, Lower Marlboro, who will receive sub-bids for erection of bungalow on South River; frame; one story; 44x60 feet; plans by Henry J. Tinley, 314 N. Charles St., Baltimore, Md.

Md., Naumann (not a postoffice).—Ferry Farms Realty Co., H. W. Rusk, agent, 618 Law Bldg., Baltimore, Md., will award contract to J. C. Morgan, 410 Union Trust Bldg., for erection of two cottages on Severn River; two and a half stories; ornamental frame and stone; concrete foundation; slate roof; cost \$16,000; plans by Emory & Nussear, 415 Professional Bldg., Baltimore, Md. (Previously noted.)

Md., Roland Park.—Harvey Middleton, 28 Light St., Baltimore, Md., awarded contract to Roland Park Company, 409 Roland Ave., Roland Park, for erection of residence; stucco; combination fixtures; tile baths.

N. C., Wilmington.—Martin Schnibben

awarded contract to E. C. Sharrar for erection of \$4500 frame residence; hot-water heating; plans by Grossmann-Mahler Architectural & Construction Co. of Wilmington. (Recently noted.)

N. C., Wilmington.—J. W. Powell awarded contract to Rogers & Thomas, Wilmington, for erection of two-story nine-room residence; cost \$3000.

N. C., Winston-Salem.—F. C. Spencer of Petersburg, Va., awarded contract to J. F. Miller, Winston-Salem, for erection of dwelling; wood; 16 rooms; brick foundation; shingle roofing; electric and gas lights; cost \$5000.

N. C., Winston-Salem.—T. C. Spencer, Petersburg, Va., awarded contract to J. E. Miller, Winston-Salem, for erection of proposed two-story dwelling; 16 rooms; frame; gas and electric lighting; cost \$5000; construction begun.

S. C., Yorkville.—D. E. Finley will expend \$7000 to erect 10-room dwelling; plans by J. S. Stan, Rock Hill, S. C.; contract (recently noted) awarded to J. J. Keller & Co., Yorkville.

Tenn., Knoxville.—W. C. Terry awarded contract to W. C. Terry & Co., Knoxville, for erection of five-room cottages at Oklahoma Ave. and Laura St.; colonial porch fronts; cost \$5000; plans by Gildard, Knoxville.

Tex., Teague.—H. G. Kernodell awarded contract to A. T. Clark, Teague, for erection of residence.

Va., Fredericksburg.—T. F. Morrison awarded contract to Frank P. Stearns, Fredericksburg, for erection of residence.

Va., Norfolk.—J. W. Borum awarded contract to Jessie Johnson, Norfolk, for erection of brick residence; cost \$5000.

Va., Harrisonburg.—E. C. Wine awarded contract to J. S. Heatwole Company, Harrisonburg, for erection of residence; cost \$5000.

Va., Charles Town.—E. Frank Ronenius awarded contract to W. M. Boxwell, Charles Town, for erection of 10-room dwelling.

GOVERNMENT AND STATE

Tex., Fort Crockett—Shed.—Quartermaster's Department, United States Army, Capt. P. Whitworth, constructing quartermaster, awarded contract to M. C. Bowden (recently noted as lowest bidder) for erection of wagon shed; one story; 30x10 feet; reinforced concrete construction; cost \$5514.

HOTELS

Fla., Port St. Joe.—Port St. Joe Company, R. H. Hemphill, vice-president and general manager, awarded contract to J. M. Van Horn, Port St. Joe, for erection of 50-room hotel; frame; brick kitchen; heating and lighting not determined; cost \$20,000; will be completed by March 1. (Mr. Van Horn recently noted as preparing plans.)

Tex., Houston.—Milby & Dow awarded contract to Frank Heidelberg, Houston, for erection of hotel; six stories; 75x120 feet; 107 rooms, each with bath; steel and reinforced-concrete fireproof construction; number of rooms equipped with small safes; present structure augmented by four stories; cost \$100,000; plans by Cooke & Son, Houston. (C. H. Milby recently noted as having plans for hotel prepared by Cooke & Son.)

MISCELLANEOUS

Fla., Pensacola—Convent.—Convent of Perpetual Adoration awarded contract to James M. Johnson of Pensacola to erect convent.

Okla., Muskogee.—Eddie Robinson awarded contract for erection of athletic clubhouse to have arena with seating capacity of 8000.

RAILWAY STATIONS

N. C., Shelby.—Seaboard Air Line Railway awarded contract to Christian Construction Co., Durham, N. C., to erect passenger station; 60x30 feet; brick; electric light; cost \$5000. (Recently mentioned.)

SCHOOLS

Fla., Tallahassee.—Florida Agricultural and Mechanical College awarded contract to O. C. Parker, Tallahassee, for erection of three buildings; two of wood construction, the other of brick veneer; cost \$20,000; plans by W. A. Edwards, 622 Candler Bldg., Atlanta, Ga. (Recently noted as receiving bids.)

Ga., Cordele.—City awarded contract to Little & Phillips, Cordele, for erection of auditorium and several buildings to O'Neal High School; cost \$10,000.

La., Kentwood.—City awarded contract to C. M. Rubush, Meridian, for erection of

school building; brick; cost (exclusive of lighting), \$29,411.10; plans by R. H. Hunt, Chattanooga, Tenn. (Recently noted.)

La., New Orleans.—City awarded contract at \$181,983 to F. A. Noulet & Son, New Orleans, for erection of downtown Girls' High School; two stories and basement; 20-odd rooms; brick; plans by E. A. Christy, 21 City Hall, New Orleans. (City lately noted as having plans prepared by Mr. Christy for \$200,000 school.)

Md., Owings Mill.—Maryland Asylum and Training School for Feeble Minded awarded contract at \$131,629 to Henry S. Rippel, 7 Clay St., Baltimore, for erection of school; two stories and basement; brick, stone and concrete; plans by Ellcott & Emmart, Union Trust Bldg.; buildings will be 60x80 feet, 50x50 feet and 40x50 feet; all three stories; ordinary construction; heating plant will cost \$46,000.

Miss., Mendenhall.—City will expend \$7000 to erect agricultural high school; 52 feet 6 inches by 72 feet 6 inches; mill construction; plans by M. M. Absop, Ittaheena, Miss.; contract (recently noted) awarded to A. L. Dickson, West Jackson, Miss.

Tex., Beville.—Beville Independent School District awarded contract at \$27,237 to L. W. Gillett, San Antonio, Tex., for A. C. Jones High School building. (District recently noted as having plans prepared by Mr. Phelps of Austin, Tex.)

Tex., Greenville.—City Council awarded contract at \$59,000 to Shepherd Bros., Greenville, for erection of high-school building, including heating, wiring and plumbing; plans by Lang & Witchell, Wilson Bldg., Dallas, Tex., call for two-story-and-basement structure; brick and cement. (Recently noted.)

STORES

D. C., Washington.—Washington Loan & Trust Co., F and 9th Sts. N. W., awarded contract to William A. Kimmel, 1508 Columbia Rd. N. W., Washington, to repair building at 915-919 7th St. N. W.; three stories; 60x70 feet; ordinary construction; steam heat; electric lighting; cost \$4000.

Fla., Lakeland.—L. W. Cowdry has plans by Guy Platt Johnson, Lakeland, for business building; brick; 60x37 feet; awarded contract to Mr. Smith for construction.

Ga., Doerun.—W. M. Smith, J. N. Tison and A. Huber will expend \$15,000 to erect seven stores; two, 30x80 feet; one, 25x90 feet, and four, 22x80 feet; ordinary brick construction; pressed-brick fronts; contract awarded to W. A. Webb and A. Huber. (Recently noted.)

Ga., Senoia.—Horton, Mayfield & Co. awarded contract to W. J. Horton, Senoia, for erection of two-story store building recently noted; 30x100 feet; brick; plate-glass front; electric lighting; electric sidewalk lights; cost \$3000. (See "Machinery Wanted.")

La., Grand Cane.—J. L. Leopold awarded contract to Mr. McClenney, Grand Cane, for erection of additional story to structure now under construction.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Cullman.—The Cullman Coal & Coke Co. is reported to have let contract to Grover C. Halbrooks to build the bridges and trestles on the company's railroad from Cullman to Julian, and other work will also be resumed on the line.

Ala., Goodwater.—A dispatch says that the Illinois Central Railroad is preparing to spend from \$25,000 to \$50,000 at Goodwater for half-mile siding and other improvements. A. S. Baldwin is chief engineer at Chicago, Ill.

Ala., Mobile.—The Mobile & Ohio Railroad, it is reported, will improve and enlarge its freight yards at Mobile; also rearrange the tracks. B. A. Wood is chief engineer at Mobile, Ala.

Ala., Birmingham.—The Birmingham Southern Railroad Co. has applied for a franchise to build a local extension for a distance of several blocks. J. B. McIntyre is chief engineer at Ensley, Ala.

Ark., Harrison.—An officer of the Harrison Mineral Belt Railway Co. says that negotiations are in progress to finance the proposed line which has been chartered in Arkansas, 46 miles, and in Missouri, about 20 miles. The entire route contemplated is from St. Louis, Mo., to Fort Worth, Tex., 450 miles, touching Fort Smith, Ark., and other points. C. D. Allison is president, J. H. Kuder, vice-president and general manager, E. E. Scofield secretary and treasurer, J. W. Davidson engineer; address, Harrison, Ga.

Fla., Titusville.—A report from Macon, Ga., says that the Wright & Wadley Construction Co. of that city has been given the entire construction contract for the proposed extension of the Florida East Coast Railway from Maytown, on the Titusville branch, to Lake Okeechobee, 130 miles, with branch of 30 miles. (Previously noted.)

La., Brooklet.—The Shearwood Lumber Co., J. N. Shearwood, president, will, it is reported, extend its railroad about 20 miles to either Pembroke or Groveland and thence

La., Grand Cane.—Farmers' Union awarded contract to Mr. McClenney, Grand Cane, for erection of concrete store.

Tex., Dallas.—Edgar L. Pike and Irving Cramer awarded contract to Southern Engineering Co., Dallas, for erection of two business buildings; two stories; brick; 10x90 feet; plans by Lang & Witchell, Dallas.

Va., Portsmouth.—Max Stelman awarded contract at \$4500 to C. N. Moody, Portsmouth, for erection of store building; two stories; brick.

Va., Richmond.—Thelheimer Bros. awarded contract to John T. Wilson, Richmond, for erection of business building; five stories; brick, concrete and steel; 12 feet 10 inches by 155 feet 6 inches; fireproof; cost \$120,000; plans by Chas. K. Bryant, Richmond.

W. Va., Charles Town.—Max Theodore awarded contract to H. P. Cline, Charles Town, for erection of enlargements and improvements to store building.

W. Va., Clark.—R. J. Staton and A. Catzer awarded contracts to J. S. Shaw, Northfork, W. Va., for erection of three buildings—28x70 foot and 24x80-foot two-story brick and two one-story frame stores; ordinary construction; electric and acetylene lighting; one hand-power elevator; cost \$15,000; plans by Mr. Shaw.

W. Va., Parkersburg.—John Walker awarded contract to W. Bateson Company, Parkersburg, for erection of store and apartment building. (See "Apartment-houses.")

W. Va., Welch.—Hutson Bros. awarded contract to Pedigo & Garry, Bluefield, W. Va., for erection of store and office building to replace burned structure; cost \$18,500. (Previously reported burned.)

THEATERS

Md., Baltimore.—Empire Theater Co., Geo. Rife, representative, 1 N. Calvert St., awarded contract to Cramp & Co., Philadelphia, Pa., for erection of theater at 31-35 W. Fayette St.; brick and terra-cotta; three stories; 156x100 feet; cost \$150,000; plans by Otto G. Simonson, American Bldg., Baltimore. (Company recently noted to open bids February 9, and Cramp & Co. mentioned as among contractors estimating.)

WAREHOUSES

Ala., Dothan.—Southern Express Co. awarded contract for erection of storage and office building.

Ark., Stuttgart.—Hammett Grocery Co., Southern Grocery Co. and Gillepie Grocery Co., all of Pine Bluff, Ark., awarded contract to E. Wilson of Pine Bluff for erection of wholesale grocery warehouse; cost \$11,000; plans by Mitchell Selligman, Pine Bluff, Ark. (Recently noted under "Stores.")

Tenn., Knoxville.—J. W. Edelen has plans by and awarded contract to J. M. Dunn & Son, Knoxville, for erection of warehouse; four stories; 50x150 feet; ordinary construction; electric lighting; electric elevator; cost \$15,000. (Recently noted.)

Ark., Little Rock.—W. G. Seaver, 10 Wall St., New York, is reported investigating with a view toward building a railroad from point in Chicot county, in the extreme southeastern part of Arkansas, to a point in Benton county, in the extreme northwestern part. This would run by way of or near Eudora, Hot Springs and Dardanelle to Bentonville.

Fla., Pensacola.—The franchise requested for the proposed railroad from Pensacola to Andalusia and from Pensacola to Memphis has been passed and approved. R. C. Megargee, 5 Nassau St., New York, and others are interested.

Fla., Tallahassee.—Reported that the Georgia, Florida & Alabama Railway contemplates building another extension, and that other development plans in the neighborhood of Tallahassee are under consideration. C. G. Barney is chief engineer at Bainbridge, Ga.

Fla., Titusville.—A report from Macon, Ga., says that the Wright & Wadley Construction Co. of that city has been given the entire construction contract for the proposed extension of the Florida East Coast Railway from Maytown, on the Titusville branch, to Lake Okeechobee, 130 miles, with branch of 30 miles. (Previously noted.)

La., Brooklet.—The Shearwood Lumber Co., J. N. Shearwood, president, will, it is reported, extend its railroad about 20 miles to either Pembroke or Groveland and thence

to Oliver, on the Central of Georgia Railway, altogether 32 miles.

Ga., Millen.—A dispatch says that a citizens' committee has been appointed to confer with a committee at Sylvester, Ga., on a plan to build a railroad from Millen to connect with the Brinson Railway at Sylvania. The Mayor may be able to give information.

Ga., Ocilla.—A dispatch says that contract has been closed for the extension of the Ocilla Southern Railroad to Nashville, Ga. J. A. J. Henderson of Ocilla is president and general manager.

Ky., Brandenburg.—Concerning a report that the Louisville, Henderson & St. Louis Railway would build a branch to the Kosmos cement quarry and the new plant a mile west thereof, an officer writes that, while a preliminary survey is being made, it is not at all certain that the line will be built, as the country is very rough and construction would be expensive. L. J. Irwin is president and general manager and S. Stites roadmaster at Louisville, Ky.

Ky., Hickman.—A dispatch says that Patrick Brady has been given contract to build a belt line at Hickman for the Nashville, Chattanooga & St. Louis Railway. Hunter McDonald is chief engineer at Nashville, Tenn.

Ky., Wasloto.—The Wasloto & Black Mountain Railroad, according to a dispatch quoting President T. J. Asher, will complete and begin operating its line to within a mile of Harlan, Ky., by March 1. It must enter the town by April 23. The 27-mile branch up Poor Fork to the operations of the Wisconsin Steel Co. is nearly all graded, and track-laying will be resumed immediately to complete the remaining 22 miles.

Mo., Irondale.—Jas. P. Ward writes that he represents parties who are preparing to build an interurban electric railway from St. Louis through the Bellview Valley, in Washington county, branching thence to the south, southeast and southwest and opening up rich territory. Hydro-electric plants will be used to generate power. Details are being arranged.

Mo., Kansas City.—Contract is reported let to the L. J. Smith Construction Co. of Kansas City to build 140 miles of the proposed St. Louis & Kansas City Electric Railway, and Mr. Smith is quoted as saying that work will begin as soon as weather permits, probably in March. It will start at Columbia, Mo., and extend to Kansas City, 128 miles, with a branch of about 10 miles from Columbia to Harrisburg. Route of main line is from Columbia via New Franklin, Arrow Rock, Marshall, Higginsville, Odessa, Blue Springs and Independence to Kansas City. D. C. Nevin, Commerce Bldg., Kansas City, is president of the railway company. The route outlined from Columbia to St. Louis is via Stevens Store, McCredie, Williamsburg, Mineola Springs, New Florence and Warrenton. From the latter the road may go via either St. Charles or Weldon Springs.

N. C., Asheville.—W. F. Randolph, agent for Dr. E. W. Grove of St. Louis, writes that it is decided to build a short, direct counterweight railway in E. W. Grove Park, on Sunset Mountain, N. C., and material is being prepared for its construction.

N. C., Greensboro.—V. C. McAdoo confirms the report that he is interested in a plan to build a railroad from Greensboro to Roxboro, N. C. Further than this, and that steps are being taken to secure a charter, there is nothing to be said at present.

N. C., Monroe.—An election is to be held March 16 to vote on \$60,000 bonds of Monroe township and \$20,000 bonds of Goose Creek township to aid the proposed Salisbury Railway. T. J. Gordon is chairman of the County Commissioners of Union county.

N. C., Pensacola.—Plans are reported prepared to build 17 miles of railroad from Boniford, on the Carolina, Clinchfield & Ohio Railway, to Pensacola to develop 12,000 acres of timber lands purchased by W. J. Brown and associates of Punxsutawney, Pa.

N. C., Weldon.—The Atlantic Coast Line is reported to have let contract to J. E. Porter & Co. for about 35 miles of second track between Weldon, Battleboro, Selma and Pleasant Hill. It is said to include the masonry and bridge work.

N. C., Winston-Salem.—The Raleigh, Winston & Western Railway, it is said, will be the name of the line to be chartered from Winston-Salem to Raleigh via Greensboro, Burlington and Durham, about 90 miles. Among those mentioned as interested are Dr. Joseph Hyde Pratt, State Geologist; W. L. Spoon, State Highway Engineer; P. H. Hanes and R. W. Gorrell, both of Winston-Salem.

Okl., Lawton.—Concerning the proposed railroad from Lawton to Ardmore, a letter to the Manufacturers Record says that pro-

moters are securing bonuses and rights of way, but the enterprise has not progressed sufficiently to assure its completion. Another letter says that the line will be 100 miles long from Lawton via Duncan to Ardmore through rolling country. Bids for construction will be opened August 31, 1911. R. L. Robertson, Lawton, Okla., and others are interested.

Okl., Lawton.—A dispatch says that the court has authorized the sale of the Lawton & Fort Sill Electric Railway Co.'s property by E. E. Shipley, receiver.

S. C., Denmark.—C. W. Garris, chairman, and others composing the committee on the proposed Denmark & Ehrhardt Railroad, to be 10 miles long, give notice that they will apply for a charter for the line, which may be operated by either steam or electricity; capital \$75,000. Address, Denmark, S. C.

Tenn., Chatanooga.—The Tennessee, Alabama & Georgia Railroad, Chattanooga Southern, has filed a mortgage to secure \$5,000,000 of bonds for its proposed extension and improvement. C. H. Fisk is chief engineer at Chattanooga, Tenn.

Tenn., Chattanooga.—The Nashville, Chattanooga & St. Louis Railway, it is reported, will double-track its line from Chattanooga to Nashville, 150 miles. Some work is already being done. Hunter McDonald is chief engineer at Nashville, Tenn.

Tenn., Harriman.—J. W. Byo of Knoxville is reported to have a subcontract on the Harriman, Knoxville & Eastern Railroad, now building out of Harriman eastward about 17 miles. He will build a steel bridge over Little Emory River, 60 feet, besides six trestles.

Tenn., Jonesboro.—A meeting at the Board of Trade adopted a resolution to prepare a bill for introduction in the Legislature to authorize Jonesboro to issue bonds for not more than \$50,000 to build a railway from Jonesboro to Johnson City, about 10 miles. H. C. Beauchamp is president of the board.

Tenn., Nashville.—A movement is under way to build an electric railway from Greenwood Park to the Hermitage, about 8 miles. Alexander Perry is chairman of a committee on the matter, and the Nashville Railway & Light Co. may construct the line; if not, private enterprise is expected to build it. Others mentioned as interested are J. B. D. DeBow, Arch. Harper, S. A. Craig and R. A. Coleman. Line will follow the Lebanon turnpike.

Tex., Galveston.—Rumored that the Frisco system is back of a plan promoted by J. P. Terrell of Chicago and others to build a railroad from Port Arthur, Tex., to the iron-ore fields in Cass county, Texas, to which the Santa Fe is now constructing a line. The chief engineer of construction of the Frisco is F. G. Jonah, St. Louis, Mo.

Tex., Galveston.—F. G. Pettibone, vice-president of the Gulf, Colorado & Santa Fe Railway, is quoted as saying that the company will spend \$1,000,000 more on its terminals at Port Bolivar, opposite Galveston. F. Merritt is chief engineer at Galveston, Tex.

Tex., Glen Rose.—Official: The Glen Rose & Walnut Springs Railway is to be 60 miles long from Walnut Springs via Glen Rose to Fort Worth, Tex. One bridge of 400 feet over the Brazos River. J. H. Farr is president and general manager at Glen Rose, Tex.; M. W. Shuler, vice-president, at Utica, N. Y., the other directors being W. D. Morton, treasurer; F. E. Johnson, secretary; A. L. Sadler, J. A. Rushing, J. M. Goldstein, W. M. Davis and J. M. Montgomery. T. M. Simpson is chief engineer.

Tex., Houston.—C. S. Woods, Box 392, Houston, Tex., writes that the San Leon Terminal Railroad Co. is not yet organized or incorporated. The proposed line is 5 miles from San Leon station to San Leon water-front, including two cement culverts. Bids for construction will be received at some time to be set, but before April 15.

Tex., Marshall.—The Marshall & East Texas Railroad, says a dispatch, has authorized \$5,000,000 of bonds for betterments. R. J. Lockwood is chief engineer at Marshall, Tex.

Tex., Rusk.—A plan is under way, says a report, to build a railroad from Houston to iron-ore fields in Cherokee county via Rusk and other points, including Groveton and Kennard. J. M. Simmons, secretary of the Rusk Commercial Club, may be able to give information.

Tex., San Antonio.—The Terrell Well Co. is reported incorporated to build an electric railway from San Antonio to San Jose, five miles. Construction is under way; capital stock \$100,000. Officers include C. D. Garrett of St. Louis, president; J. D. Oppenheimer, vice-president; A. L. Matlock, secretary; Dr. Frederick Terrell, treasurer; A. D. Powers, general manager and purchasing agent, all

at San Antonio, Tex. A late report said that the line had changed hands and that construction would be resumed.

Va., Blackstone.—A letter to the Manufacturers Record says that a plan is under consideration to build an electric railroad in connection with the development of 1000 acres of land in the western part of North Carolina. James Cannon at Blackstone, Va., can probably give further information.

W. Va., Harrisville.—J. B. Westfall of Harrisville, it is reported, has purchased the uncompleted Harrisville & Cornwallis Railway, and is quoted as saying that he will complete the line. It is said that about \$30,000 have already been spent.

STREET RAILWAYS

Ala., Birmingham.—It is reported that the Birmingham Railway, Light & Power Co. will spend \$600,000 for improvements this year. A. H. Ford is president and general manager.

Ala., Montgomery.—The Montgomery Traction Co., it is reported, will build an extension of a mile out Cleveland Ave. and an extension of equal length on the Carter Hill road.

Ark., Fort Smith.—The Fort Smith Light & Traction Co. is considering plans for extensions and improvements, it is reported, to cost at least \$2,000,000. J. Walter Gillette is general manager.

Ky., Somerset.—The sale of the Somerset Water, Light & Traction Co., says a tele-

gram, has been confirmed by the court, and the new corporation is the United Water, Light & Traction Co.; capital \$100,000. Michael Curd of Louisville is named as a large stockholder. Reported that \$50,000 will be spent for improvements, including an extension of a mile. An extension of seven miles from Somerset to Burnside is also said to be contemplated.

Md., Baltimore.—The United Railways & Electric Co. contemplates building an extension of about a mile in the southern part of the city.

N. C., Asheville.—The Asheville Electric Co., says a report, has applied for franchise to build additional track and make other improvements to cost over \$100,000.

Tex., Beaumont.—James F. Weed, receiver of the Beaumont Traction Co., says a report, announces the negotiation of a sale of \$125,000 of receiver's certificates for improvements, including double-tracking.

Tex., Dallas.—The Dallas Street Railway Co. has been chartered with \$20,000 capital to build an electric line about a mile long from Garrett Ave. along Ross Ave. to Henderson, to Juliette, to private right of way. R. Vickery of Fort Worth is president; A. C. Moser, vice-president; George W. Works, secretary and treasurer, both at Dallas.

Tex., San Antonio.—The San Antonio Traction Co., it is announced, will spend \$250,000 for improvements, including double-tracking. W. B. Tuttle is vice-president and general manager.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Aqueduct Construction.—See "Sewer Construction, etc."

Air Compressor.—C. F. Blumberg, Seguin, Tex., wants prices on air compressor.

Automobiles, etc.—P. J. Karpateff, Moscow, Russia, wants to correspond with manufacturers and dealers in automobiles and accessories. (See "Manufactured Goods.")

Automobile.—H. A. Faustett, Ocala, Fla., wants motor car for butcher's meat delivery; interested in three-wheel car.

Baling Presses.—Wallace M. Quinn & Co., Crisfield, Md., want prices on new or second-hand hand-baling presses for baling seagrass in 200-pound bales; power press not desired; want to correspond with manufacturers and dealers.

Boiler.—See "Soap Machinery."

Boiler.—Board of Commissioners of Charleston (S. C.) Orphan House. Sealed proposals, in duplicate, will be received by Board at Orphan House until noon, March 2, for furnishing 80 horse-power boiler. Copies of specifications can be obtained from A. L. Barton, engineer, at Orphan House; St. John P. Kinloch, secretary of Board.

Boring Presses.—Wallace M. Quinn & Co., Crisfield, Md., want prices on new or second-hand hand-baling presses for baling seagrass in 200-pound bales; power press not desired; want to correspond with manufacturers and dealers.

Boiler.—See "Electric-light Plant."

Boilers.—Wisconsin Steel Co., W. C. Tucker, superintendent, Yowell, Ky., is receiving bids on eight horizontal return tubular boilers; 150 horse-power each; built for working pressure of 150 pounds.

Boiler.—Durham Iron Works, Box 99, Durham, N. C., wants 50 or 60-horse-power return-tubular boiler; second-hand, and without patches or blisters.

Boiler.—Waukomis Electric Light & Power Co., Waukomis, Okla., wants prices on boiler for electric-light plant.

Boilers.—B. W. T. Dillon, chairman building committee, Monroe, N. C., wants prices on brick.

Building Materials.—W. A. Yarbrough, Madisonville, Tex., wants prices on storefronts, plate glass, iron columns and tin roofing.

Building Materials.—Westlake Construction Co., St. Louis, Mo. (figuring on general contract for seven-story building at Houston, Tex.), wants prices on fireproofing, granite, terra-cotta, cut stone, structural steel and sundry iron, ornamental iron, mill work, sheet metal, marble, tile, glass, roofing, lime, cement, sand, gravel, broken stone, brick, hollow-partition tile, plastering and painting.

Cable.—Office of Chief Signal Officer, Capt. A. S. Cowan, Disbursing Officer, War Department, Washington, D. C., will receive bids until March 1 for furnishing 1000 feet wire, high tension, in accordance with specifications Nos. 416-a and 403-a; also 6000 feet of type 307, 15-pr. lead-covered and armored cable, in accordance with specifications Nos. 427-b and 96-b and drawing No. 106; to be furnished on six reels of 1000 feet each; new reels will be required.

Cans.—See "Tooth-paste Powders, etc."

Cars.—American Metallic Packing Co., Lexington, Ky., wants bridge; 225 feet long; two spans; 25 feet high; 200 feet steel trestle work; to sustain standard-gauge railroad.

Creamery Machinery.—Ullman Bros., 1212 Hull St., Manchester, Va., wants addresses of manufacturers of winders and vise for making brooms.

Building Materials, etc.—Hellams & McCully, 325 S. Ann St., Mobile, Ala., want

Philadelphia, Pa., wants number of flat cars, box cars, dump cars and cabooses.

Cement.—See "Building Materials."

Cement.—Reinforced Concrete Culvert Pipe Co., Jacksonville, Fla., wants standard brands Portland cement, carload lots, f. o. b. cars Jacksonville, Fla.

Church Furniture.—William C. West, 1103 E. Main St., Richmond, Va., wants prices on pews and other church furniture.

Church Furniture.—F. S. Osman, Highland Park, Richmond, Va., wants prices on church furniture for \$5000 church building.

Concrete Mixer.—C. F. Blumberg, Seguin, Tex., wants prices on small concrete mixer.

Corn-husking Machine.—W. B. Metcalf, Scottsbluff, Neb., wants to correspond relative to having patented corn-husking machine manufactured; on royalty or other basis.

Curbing.—Board of Control, Norfolk, Va., will receive bids until 12:30 P. M. February 24 for furnishing f. o. b. city of Norfolk 1500 feet, more or less, of class B curbing, city specifications; specifications and any information can be obtained from City Engineer W. T. Brooke.

Crushed Rock.—See "Gravel, etc."

Crushing Machinery.—W. V. Moore, West End, Va., wants second-hand jaw crusher, complete, with elevator and screen; 10x20 or 11x22.

Ditching Machinery.—John Obergfell, Itta-bena, Miss., wants tile ditching machine.

Drills.—See "Machine Tools."

Electric-light Plant.—Eufaula Gas, Electric Light & Power Co., Eufaula, Ala., wants prices on complete electric-light plant, including horizontal-tubular and water-tube boilers; four-valve and Corliss engines; 75 to 250-horse-power electric generators; three-phase 60 cycle 230-volt switchboard.

Electrical Machinery.—Waukomis Electric Light & Power Co., Waukomis, Okla., wants prices on 40-kilowatt direct-connected generators, 125 or 250 volts.

Electrical Machinery.—Wisconsin Steel Co., W. C. Tucker, superintendent, Yowell, Ky., is receiving bids on two 250-kilowatt direct-current generators direct connected to simple engines; also 100-kilowatt direct-current generator, direct connected.

Electrical Machinery.—Spartanburg Printing Co., Spartanburg, S. C., wants prices on electric motors.

Electrical Supplies, etc.—P. J. Karpatcheff, Moscow, Russia, wants to correspond with manufacturers of and dealers in electrical and lighting supplies. (See "Manufactured Goods.")

Electric-light Plant.—Sealed proposals will be received at Monticello, Ark., until March 15 at 3 P. M. for installation of electric-light plant to replace one burned lately; proposed plant will contain two 72-inch by 16-foot return-tubular boilers, one 75 and 1 100-kilowatt direct-connected alternating generators, with switchboards, wiring, piping, fittings, boiler-feed pumps, feed-water heater and all appurtenances thereto, to complete electric plant, less building; plans and specifications on file at office of Commissioners at Monticello; each bid to be accompanied by certified check for 5 per cent. of bid; N. C. Roe, chairman of Commission.

Electric Motors.—Chas. S. Myers, Columbia, Pa., wants quotations on new one-sixth horse-power 1600 revolution 110 and 220 volts direct and alternating compound wound motors.

Electric Wiring, etc.—See "Mechanical and Electrical Equipment."

Elevators.—See "Mechanical and Electrical Equipment."

Elevator.—C. F. Blumberg, Seguin, Tex., wants prices on elevator.

Engines.—See "Soap Machinery."

Engine.—R. A. Zoeller, Tarboro, N. C., wants 10x10 or 10x12 automatic high-speed second-hand engine.

Engine.—Waukomis Electric Light & Power Co., Waukomis, Okla., wants prices on engine for electric-light plant.

Engines.—See "Electric-light Plant."

Engines.—United States Aerial Publicity Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants 30-horse-power three-cylinder featherweight engines, to be fitted with magneto and carburetor to work under any atmospheric condition.

Engines.—Wisconsin Steel Co., W. C. Tucker, superintendent, Yowell, Ky., is receiving bids on two twin engines, 160 horse-power each, for driving coal crushers; also one side-crane engine, 150 horse-power, to be direct connected to ventilating fan.

Fire-department Equipment.—Bids will be received at office of G. F. Cooper, City Clerk, Columbia, S. C., until 12 noon March 2 for

combination motor fire engine and hose wagon (500 to 800-gallon-per-minute capacity), with four three-gallon chemical band extinguishers; also combination chemical and hose wagon to carry 1200 feet of hose, 50-gallon tank and seven men; one angle iron; 100-foot bell tower, 10,000 pounds capacity; specifications must accompany bid.

Fire-escapes.—City of Winchester, Va., will receive bids until March 1 on fire-escapes for city hall or auditorium; specifications obtainable on application to city hall committee, care Mayor's office.

Fireproof Windows, etc.—Wise Granite Co., Wise, N. C., wants fireproof windows and doors.

Flour Mill Machinery, etc.—Woodruff Roller Mills, C. S. Jones, manager, Woodruff, S. C., wants prices on 80-barrel flour mill; also grist mill.

Forges.—See "Machine Tools."

Friction Clutches.—United States Aerial Publicity Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants universal coupling and friction clutches.

Gas Engine.—See "Bottling Machinery."

Gas Engine.—Paul E. Williams, Paris, Tex., wants prices on 50 to 60-horse-power gas engine.

Gas Engine.—C. F. Blumberg, Seguin, Tex., wants prices on three to five-horse-power gas engine.

Gasoline Engine.—Zaragoza Mining & Milling Co., 813 Farley Bldg., Birmingham, Ala., wants gasoline engine to operate two or three drills; quote lowest price complete f. o. b. cars Descubridora, Mexico.

Ginning Machinery.—Liberty Chair Co., James H. Johnson, president and manager, Liberty, N. C., wants prices on 60 or 70-saw cotton gin, also self-packing press.

Glass.—William C. West, 1103 E. Main St., Richmond, Va., wants prices on art glass.

Glass.—Horton, Mayfield & Co., Seneca, Ga., will want prices on plate-glass front for \$3000 store building.

Gravel, etc.—Reinforced Concrete Culvert Pipe Co., Jacksonville, Fla., wants prices on one-half-inch river gravel or crushed rock; carload lots f. o. b. cars Jacksonville.

Grinding Machinery.—Barnard & Hester, 122 S. Franklin St., Tampa, Fla., want machine for grinding oyster shells for poultry feed.

Handle Manufacturers.—Benton Manufacturing Co., Monticello, Ga., wants names and addresses of manufacturers of plow handles.

Hardware.—See "Screws."

Heating and Ventilating.—See "Mechanical and Electrical Equipment."

Heating Plant.—L. O. Brightbill, Salem, Va., wants prices on heating outfit for \$2500 dwelling.

Heating Plant.—Dr. Edwards, Lynchburg, Va., wants prices on vapor heating plant with boiler for hot-water attachment.

Heating Plant.—E. Dalton, Pocahontas, Ark., will want prices on hot-water heating apparatus for \$3000 dwelling.

Hoisting Engines.—Eastern Railway Supply Co., 413 American Bldg., Baltimore, Md., wants two 7x10 double-cylinder double-drum hoisting engines.

Hollow Tiling.—Department of Justice, Office of Superintendent of Prisons, Washington, D. C. Proposals will be received until 10 A. M. March 18 for furnishing and delivering at United States penitentiary, Atlanta, Ga., for use in administration and hospital buildings, hollow tiling for partitions and furring, in accordance with specifications. Copies of specifications, together with further information, may be had upon application at above office. R. V. Ladow, superintendent of prisons, Washington, D. C.

Hose.—Wild Bros. Hardware Co., Evergreen, Ala., wants 500 to 1000 feet fire hose; send samples and prices.

Hose.—Thornhill Wagon Co., Lynchburg, Va., wants 900 linear feet 2½-inch rubber-lined hose; six nozzles.

Ice Machinery.—G. Lloyd Preacher, Augusta, Ga., wants prices on second-hand five-ton ice plant, complete with all fittings, fixtures, etc., to manufacture crystal ice.

Ice Machinery.—Woodruff Roller Mills, C. S. Jones, manager, Woodruff, S. C., wants prices on 5-ton ice plant.

Engines.—See "Electric-light Plant."

Engines.—United States Aerial Publicity Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants 30-horse-

power three-cylinder featherweight engines, to be fitted with magneto and carburetor to work under any atmospheric condition.

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combination motor fire engine and hose wagon (500 to 800-gallon-per-minute capacity), with four three-gallon chemical band extinguishers; also combination chemical and hose wagon to carry 1200 feet of hose, 50-gallon tank and seven men; one angle iron; 100-foot bell tower, 10,000 pounds capacity; specifications must accompany bid.

Leather.—See "Manufactured Goods."

Levee Construction.—James Gould, Pine Bluff, Ark., and A. M. Morrow, El Dorado, Ark., will award contracts for construction of 600,000 yards of levee work; no stumps or roots.

Locomotives.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and S. Penn Sq., Philadelphia, Pa., wants two heavy mogul type standard-gauge locomotives.

Lumber.—Dowd Bros., 1325 G St. N. W., Washington, D. C., want prices on lumber.

Mailing Cases.—W. H. Porter, Box 17, Bessemer, Ala., wants to correspond with manufacturers of mailing cases for liquid medicines.

Machine Tools.—Thornhill Wagon Co., Lynchburg, Va., wants hydraulic wheel-box press; two-spindle drill for drilling tire and counter-sinking; spindle drill press; hydraulic tire setter; power hammer for welding tires; small trip hammer; four blacksmith forges, 42x42 inches, blast connection 4 inches; one 1-inch and one 2½-inch automatic thread rolling machines; power wheel dipping machine; three electric drills or boring machines; electric tire welder, capacity 1½x5x16 inches to 3½ inches.

Mallets.—National Refrigerator & Butchers' Supply Co., 500 N. 2d St., Memphis, Tenn., wants addresses of manufacturers of mallets.

Manufactured Goods.—P. J. Karpatcheff, Moscow, Russia, wants to correspond with manufacturers of and dealers in following goods with view to agencies: Natural and artificial leather (dressed and undressed), shoes, travelers' supplies, upholstery goods, technical and scientific; tiles, hardware, metals, electrical and lighting supplies, automobiles and accessories.

Mechanical and Electrical Equipment.—R. B. Mason, Vansant Bldg., 210 E. Lexington St., Baltimore, Md., wants sub-bids on drainage, plumbing, water supply, gas piping, etc., as specified, for two buildings; installation of electric wiring, etc., for lighting, fire-alarm systems, telephones, etc., for both buildings; passenger elevator, ash lift, etc., as specified; boilers, smokestacks, heating and ventilating apparatus, piping for mechanical plant; thermostatic control of air temperature; vacuum-cleaning system; sprinkler system; engines, turbine, generator, switchboard, generator leads, etc., including connection with old building as specified; bids to be submitted on or before February 21. (Mr. Mason one of bidders on erection of Polytechnic Institute; contract to be awarded ed February 23.)

Mill Work.—Dowd Bros., 1325 G St. N. W., Washington, D. C., want prices on mill work.

Mill Work.—See "Building Materials."

Motor.—W. B. Tooie, Augusta, Ga., wants prices on second-hand three-horse-power electric motor.

Nickel-plating, etc.—Tulsa Boiler & Manufacturing Co., Tulsa, Okla., wants addresses of nickel-plating or oxidizing works handling small articles.

Oil Filter.—R. B. Small Company, Columbus, Ga., wants simple oil filter for exhaust pipe of press; give information and prices.

Organ.—F. S. Osman, Highland Park, Richmond, Va., wants prices on organ for \$5000 church building.

Paving.—Charles E. Bolling, City Engineer, Richmond, Va., will receive bids until 4 P. M. February 28 for paving road beds of certain streets with granite spalls, as per list on file in office of City Engineer, where blank forms of proposals can be had and specifications may be seen; certified check for \$50 to accompany each bid.

Paving.—Bob Parman, City Clerk, Oklahoma City, Okla., will receive bids until 5 P. M. February 27 for paving with sheet asphalt, grading and otherwise improving Lindsay Ave., Wheeler St., intersection of Bath Ave., and 12th St., 7th St., 31st St., 17th and 18th Sts., etc.; concrete curb and gutter; plans and specifications on file in office of City Clerk; certified check, 3 per cent. of bid.

Paving.—Board of Control, Norfolk, Va., will receive bids until 12:30 P. M. March 1 for regulating and paving with some smooth material portion of Bank St.; about 4125 square yards; specifications, instruction to bidders and other information may be obtained on application to W. T. Brooks, City Engineer; bids to be made on forms attached to specifications; certified check 5 per cent. of bid.

Paving.—City of Fayetteville, N. C., will receive proposals for street paving to amount of \$35,000; light traffic pavement; work to begin on or about April 1; C. B. Ledbetter, chairman of street committee.

Paving.—Hotel Bel Air Co., New Castle, Va., will require 52,000 feet of one-half and one-inch pipe.

Piping.—Proposals addressed to City Council, Augusta, Ga., will be received by Waterworks Committee until 4 P. M. March 2 for furnishing f. o. b. cars, Augusta, 1000 linear feet 12-inch pipe; 250 linear feet 10-inch pipe; 2400 linear feet 8-inch pipe; 8000 linear feet 6-inch pipe; all class C; cast-iron pipe, standard specifications, together with necessary specials to lay above pipe; payments made in cash; delivery to commence within 30 days from receipt of order, and to be completed within 30 days thereafter; Nisbet Wingfield, City Engineer and Commissioner Public Works; Thomas Barrett, Jr., Mayor.

Piping.—City of Houma, La., Lucius Tucker, City Engineer, wants to purchase 3000 feet of 4-inch pipe for fuel oil.

Piping.—Sealed bids will be received by trustees for water-works and improvement bonds, Jacksonville, Fla., until 3 P. M. March 15 for furnishing materials and laying about 250 feet of 12-inch and 940 feet of 10-inch cast-iron sewer pipe; laying 800 feet of 10-inch and 13,400 feet of 8-inch terra-cotta sewer pipe, together with "Y" branches, and building manholes; also for furnishing materials and building 500 feet of 30-inch and 300 feet of 24-inch circular brick drains, laying 765 feet of 12-inch and 2610 feet of 15-inch pipe drains, and building manholes; certified check, \$800, payable to William M. Bostwick, Jr., chairman, to accompany each bid; plans and profile can be seen and specifications obtained at office of board. For further information apply to R. N. Ellis, C. E., superintendent, Jacksonville.

Plumbing Fixtures.—Department of Justice, Office of Superintendent of Prisons, Washington, D. C. Proposals will be received until 10 A. M. March 16 for furnishing and delivering at United States penitentiary, Atlanta, Ga., plumbing fixtures to be installed in administration building, in accordance with specifications. Copies of specifications, together with further information, may be had upon application at above office. R. V. Ladow, superintendent of prisons, Washington, D. C.

Plumbing.—See "Mechanical and Electrical Equipment."

Printing Material.—Spartanburg Printing Co., Spartanburg, S. C., wants prices on printing material.

Propellers, etc.—United States Aerial Publicity Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants propellers, complete, and propeller hubs.

Power-plant Materials.—S. S. Tuckwiller, Lewisburg, W. Va., will purchase new or second-hand material for construction of power plant, etc.; plant to include two to five miles transmission, concrete dam, 300 feet of 10-inch hydraulic pipe, water motor, etc.

Pump.—Ulmer Machinery Co., M. W. Ulmer, president, Tampa, Fla., wants prices on two-stage turbine pump for irrigation purposes, with view to agency.

Pumps.—J. J. Groetken, Box 608, Tulsa, Okla., wants addresses of manufacturers of rotary hand pumps.

Radiators.—United States Aerial Publicity Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants 40 to 50-horse-power radiators.

Rails, etc.—C. S. Woods, Box 392, Houston, Tex., will need five miles of 60-pound rails, 15,000 ties, bolts, spikes, etc.

Refrigerators.—A. J. Baldwin & Co., 102 Main St., Dawson, Ga., wants to correspond with manufacturers of residence refrigerators.

Road Machinery.—Effingham County Commissioners, A. B. Kleffer, chairman, will receive bids at Springfield, Ga., until March 7 for 10-ton road roller.

Road Machinery.—Hall County Board of Commissioners, John A. Smith, chairman, Gainesville, Ga., wants prices on road scrapers.

Road Machinery.—Eastern Railway Supply Co., 413 American Bldg., Baltimore, Md., wants two 10-ton and one 5-ton road rollers.

Road Roller.—Thomas Yearsley, 211 N. 3d St., Philadelphia, Pa., wants prices on road roller. Give particulars.

Roofing.—Pedro Henriquez, Aroa, Venezuela, care Boulton & Co., Pto. Cabello, wants cost f. o. b. New York of 5450 pounds corrugated, galvanized zinc roofing in sheets 6 feet by 8 feet 3 inches corrugation; thickness about 25 E. S. W. G., or about 9 sheets in every 100 pounds; shipping freight and charges to Pto. Cabello; desires privileges of sole agency.

Roof Tile, etc.—Department of Justice, Office of Superintendent of Prisons, Wash-

ington, D. C. Proposals will be received until 10 A. M. March 14 for furnishing and delivering at United States penitentiary, Atlanta, Ga., tile, asphalt mastic, tar and roofing felt paper, in accordance with specifications. Copies of specifications, together with further information, may be had upon application at above office. R. V. Ladow, superintendent of prisons, Washington, D. C.

Safe, etc.—Smoaks Banking Co., Smoaks, S. C., wants prices on safe, vault and other bank fixtures.

Safe, etc.—Bank of Commerce, J. H. Perry, president, Siloam Springs, Ark., wants prices on safe, vault and other bank fixtures.

Sand.—Reinforced Concrete Culvert Pipe Co., Jacksonville, Fla., wants clean, sharp river sand; carload lots f. o. b. cars Jacksonville.

Sawmill Machinery.—Swartzwelder & Co., Albright, W. Va., want prices on lathe mill or combination lathe and baluster saw; also one cut-off saw.

Sawmill.—American Metallic Packing Co., Lexington, Ky., wants double seven or eight-foot band mill, complete, with engines and boilers, steam feed, nigger and steam set works. Give full description.

Screws.—Tomojiro Okuda, Osaka, Japan, wants to correspond with manufacturers and exporters of iron and wood screws; wants information, prices, etc., with view to agency.

Seating.—Karl Busemeyer, Zinzendorf Hotel, Winston-Salem, N. C., wants to correspond with manufacturers of church pews.

Seating.—See "Church Furniture."

Seating.—Mrs. J. B. Greenwood, Route 1, Greensboro, N. C., wants prices on new or second-hand seats (several hundred) for high-school auditorium.

Sewer Construction, etc.—Sealed proposals addressed to Mayor, Atlanta, Ga., will be received by the Mayor's secretary until 3 P. M. March 14 for furnishing labor and materials for constructing Intrenchment Creek disposal plant, Intrenchment Creek intercepting sewer from county line to location of plant, DuBose aqueduct on the Peachtree Creek intercepting sewer line, aqueduct and bridge over Orme St. branch on Collier Rd., and aqueduct on Intrenchment Creek; plans and specifications on file in office of chief of construction, Atlanta; bids to be made on blanks submitted with specifications; certified check as required in the specifications to accompany each bid; plans and specifications will be furnished on application to chief of construction, R. M. Clayton, Atlanta, Ga., or Messrs. Hering & Fuller, engineers, 170 Broadway, New York, N. Y.; deposit of \$25 required for copy of plans and specifications.

Sewer Construction.—See "Water-works and Sewerage."

Sewer Construction.—Office of Constructing Quartermaster, Fort Washington, Maryland. Proposals will be received until 1:30 P. M. March 20 for construction of eight-inch sewer and sewer outlet and iron outfall; information on application; Capt. R. H. C. Kelton, Constructing Quartermaster.

Sewer Construction.—Office of Commissioners, D. C. Proposals will be received until 2 P. M. February 21 for construction of sewers in District of Columbia. Forms of proposals, specifications and necessary information may be obtained from chief clerk Engineering Department, Room 427, District Bldg., Washington, D. C. Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners, D. C.

Sidewalk Lights.—Wise Granite Co., Wise, N. C., wants sidewalk lights.

Shears.—W. H. Rogers Company, Houston, Tex., wants to purchase one pair new or second-hand gap shears to cut not less than 15-inch strip.

Sap Machinery.—Alma Soap Manufacturing Co., A. C. Starbird, president, Alma, Ark., will open bids at once for soap machinery, including engine, boiler, vats, mixers and molds.

Sprinkler System.—See "Mechanical and Electrical Equipment."

Sprinkler Equipment.—Standard Chair Co., Thomasville, N. C., wants dry-system sprinkler equipment for chair factory.

Steel.—Horton, Mayfield & Co., Senoia, Ga., will want prices on steel front for \$3000 store building.

Still.—The Alcatraz Company, Richmond, Va., wants second-hand still, complete with condenser.

Store Front.—See "Building Materials."

Stone.—Protestant Episcopal Church, T. B. Dillon, chairman building committee, Monroe, N. C., wants prices on stone.

Structural Steel.—See "Building Materials."

Telephone Equipment.—Office of Chief Signal Officer, Capt. A. S. Cowan, Disbursing officer, War Department, Washington, D. C., will receive bids until February 27 for furnishing large and miscellaneous lot of telephone equipment, including mountings, switches, annunciators, hoods, etc. Send for specifications.

Thrust Bearings.—United States Aerial Public Co., V. E. Jossenberger, vice-president, 725 Main St., Columbia, S. C., wants 1½-inch thrust bearings.

Tile.—See "Building Materials."

Timber Sizer.—Wanted, four-side timber sizer; send description and price. Address D. Box No. 225, Chattanooga, Tenn.

Tooth-paste Powders, etc.—Dr. Chas. F. Crouch, Dawson, Ga., wants addresses of manufacturers of powdered material for tooth paste and powders, etc.; also cans.

Trucks.—Swartzwelder & Co., Albright, W. Va., wants prices on two log trucks, eight wheels each, suitable for 34-inch-gauge steel rail.

Vacuum-cleaning System.—See "Mechanical and Electrical Equipment."

Ventilating Fan.—Wisconsin Steel Co., W. C. Tucker, superintendent, Yowell, Ky., is receiving bids on ventilating fans capable of delivering 200,000 cubic feet air against 2½-inch water gauge.

Vulcanizer.—C. F. Blumberg, Seguin, Tex., wants prices on vulcanizer.

Washing Machines.—C. L. Donehue, Gadsden, Ala., wants to correspond relative to having patented washing machine manufactured; sheet-iron with wooden rollers.

Water Motors, etc.—S. S. Tuckwiller, Lewisburg, W. Va., wants addresses of manufacturers of water motors. (See "Power-plant Materials.")

Water Meters.—Sealed proposals will be received at office of J. B. Winslett, City Secretary, Dallas, Tex., until 3 P. M. March 1 for furnishing f. o. b. cars Dallas water meters in sizes from five-eighths to one inch, inclusive, in lots of 500, 750 and 10,000; each bid must be accompanied by certified check for \$500, payable to City Treasurer; specifications on file in office of City Secretary, and may be had on application; usual rights reserved; envelopes must be marked "Bids on Water Meters."

Water Main.—Sealed proposals will be received by Board of City Commissioners, Galveston, Tex., at office of John D. Kelley, City Secretary, until April 3 and opened at first regular or special meeting thereafter for furnishing all material and doing all work on complete installation of water main, ready for use, along Causeway from Virginia Point to Galveston Island; approximately 10,766 linear feet cast-iron pipe; each proposal must be submitted in duplicate and accompanied by certified check payable to order of City Secretary in sum of 5 per cent. of amount of bid; work to be done in accordance with plans, details and specifications prepared by and obtainable from A. T. Dickey, City Engineer, City Hall, on deposit of \$10 with City Secretary; bond for 30 per cent. of amount of contract price required; usual rights reserved.

Water-works.—Proposals will be received by D. H. Arnold, Mayor, and Board of Aldermen, Jonesboro, N. C., until 5 P. M. March 13 for building water-works; work will consist of furnishing 165 tons of 6-inch cast-iron pipe, and 220 tons of 8-inch cast-iron pipe, together with hydrants and specials; laying four miles 6-inch and 8-inch pipe, and furnishing and erecting 75,000-gallon tower and tank; plans and specifications on file at office of Clerk W. S. Murchison in Jonesboro, and at office of White & Platt, engineers, Durham, N. C.; copies of specifications, form of proposal, etc., may be obtained from engineers at Durham; bid to be accompanied by certified check for \$500.

Water-works.—Sealed proposals will be received by Bond Commission, Gainesville, Ga., until noon February 27 for constructing water-works and for furnishing material for same; proposals will be received on whole or any sub-divisions as shown by specifications; each proposal to be accompanied by certified check for 10 per cent. of bid; plans and specifications will be on file at office of City Engineer, E. B. Epps; R. D. Mitchell, chairman Bond Commission.

Water-works and Sewerage.—City of Mansfield, La., will receive offers from private corporations to establish water-works and sewerage system; will give liberal franchise and bonus; water easily obtained; for further information address W. E. Singleton, City Clerk.

Wheels.—Ashboro Wheelbarrow & Manufacturing Co., Ashboro, N. C., wants delivered prices on wood wheels for wheelbarrows; four and eight spokes to wheel. Send cuts of same.

Wire Fabric.—Reinforced Concrete Culvert Pipe Co., Jacksonville, Fla., wants prices on three-inch mesh welded wire fabric; No. 10 wire both ways; 48 inches wide; carload lots of 20,000 to 30,000 square feet.

Woodworking Machinery.—Thornhill Wagon Co., Lynchburg, Va., wants following woodworking machinery: Large swing cut-off saw; 12-inch jointer; heavy double surfacer for hardwood; single double surfacer for same; seven-spindle vertical borer; tilting table trim saw; triple-head gaining machine; 45-inch exhaust fan; skein press, with boring

and screwing attachment; 10-inch four-sided molder (heavy); automatic knife grinder; spoke retensioning and facing machine; wheel rimmer; two-spindle drill; sander for polishing both sides of wheel felloes; felloe planing machine (two sides); electric hub band welder; flexible upright belt-polishing machine; 42-inch disc sander; arm-boring machine; combination rip and trim saw, iron top; flexible boring machine.

Woodworking Machinery.—See "Timber Sizer."

Woodworking Machinery.—See "Insulator-pin Machinery."

INDUSTRIAL NEWS OF INTEREST

Commercial Secretary Seeks Position

An experienced commercial secretary, who states that he is prepared to offer the highest references, is desirous of securing a permanent engagement. Letters addressed to No. 749, care Manufacturers Record, will be forwarded.

Makes Knoxville Distributing Point

Because of the desirability of Knoxville as a distributing point for a part of Tennessee and North Carolina, the Crane Company, Chicago, has purchased the stock and goodwill of the Southern Brass & Iron Co., Knoxville, and will handle at that point its regular line of steam and plumbing supplies, and probably a few mill supplies.

Architects for Many Buildings

Shattuck & Hussey, architects, of Chicago, with offices at Nashville also, inform the Manufacturers Record that they have been awarded the commission for preparing plans and specifications for about 50 Young Men's Christian Association buildings in China, Japan, Corea and the Philippine Islands, with possibly some extensions in India and Russia.

Iroquois Road Machinery

Indicating that there is to be no cessation in road construction and improvement in the Philippines, the Iroquois Iron Works of Buffalo has received an order for six 10-ton macadam steam rollers for immediate shipment to Manila. At the same time the United States Government ordered a 10-ton Iroquois macadam roller for delivery at Washington, D. C.

Wants Rubber Goods Salesman

A salesman is wanted to offer mechanical rubber goods in Southern territory. Only those having had previous experience and with an established trade need apply. The account offered is claimed to be one of the oldest and best, the goods well and favorably known. Address No. 741, care of Manufacturers Record.

Manufacturing Plant for Sale or Lease

Located in a progressive Virginia city a valuable manufacturing plant, including seven acres of real estate, is offered for sale or lease. The plant embraces new concrete fireproof factory buildings and office structure between two important railroads and connected with each. For details address "Manufacturing Opportunity," care Manufacturers Record.

Charles White Gas Engine Co.

The Charles White Gas Engine Co. has taken over the White & Middleton Gas Engine Co., located at Charles and Winder Sts., Baltimore, and will continue the manufacture of gas engines under the immediate supervision of Charles White. A number of valuable improvements have been made in both the engine and manufacture, and the company will continue to supply one of the best gas engines on the market.

New Department Added

The New Orleans Roofing and Metal Works, manufacturer of sheet-metal products of various kinds, has added a new department to the plant (at St. Louis St. and Carrollton Ave., New Orleans) for the manufacture of corrugated galvanized tanks, cisterns, culverts, fire barrels, etc. This well-known company states that it manufactures "anything in sheet metal," and in addition to the New Orleans plant has a Mobile (Ala.) branch office.

Frank M. Blaisdell.

Frank M. Blaisdell, architect and civil engineer, First National Bank Bldg., Fort Smith, Ark., has established branch offices at 917 and 918 Southern Trust Bldg., Little Rock, Ark. Mr. Blaisdell is prepared to act as architect and engineer for buildings of all kinds, and he invites manufacturers and

others to send him catalogues and other literature of interest, addressing the Little Rock office.

W. W. Moore, Engineer

W. W. Moore, engineer and electrical expert, has recently established himself in Birmingham as consulting and constructing engineer, and will, in addition to his engineering work, carry a line of mining supplies and machinery. He has been with the Wesco Supply Co. of St. Louis for the past nine years, first as traveling salesman and later as manager of the Birmingham branch of that company, and will now specialize in designing and constructing electric-light and water-power plants.

Established Traffic Department

Owing to its largely increasing trade, the Edwards Manufacturing Co., "the sheet-metal folks," and among the largest manufacturers of sheet-metal building material, with general offices and plant on Eggleston Ave., 4th to 5th St., Cincinnati, has established a traffic department and secured the services of J. H. Blanton as traffic manager. Mr. Blanton was formerly connected with the L. & N. Terminal and the Nashville, Chattanooga & St. Louis Railway at Nashville, and should be well qualified to handle the intricate details of his department.

Bids for Courthouse Removal

Commissioners of Roads and Revenues of Fulton County, Atlanta, Ga., will receive bids on March 18 for the sale and removal of the old courthouse buildings and annex. Bids are to cover the removal of all material and foundations, the removal of debris, etc., within 80 days from the date on which the Commissioners instruct the bidder to begin work. This removal is to be undertaken under the supervision of Architects A. Ten Eyck Brown and Morgan & Dillon of Atlanta. For full information address H. E. Palmer, chairman of Commissioners, Atlanta.

Graham-Bumgarner Company

The Graham-Bumgarner Company, manufacturer and jobber of boots and shoes, Parkersburg, W. Va., expects to have its new factory running at full capacity (about 2500 pairs shoes per day) by the last week in February. This new factory is 45x170 feet, five stories, and is completely equipped for the manufacture of men's, boys' and youths' heavy shoes and men's fine shoes. The company was established in 1902 with a volume of business of \$50,000 the first year, and with the new factory just commencing operations expects to develop a business of \$1,000,000 during 1911. This company is also agent for the Hood Rubber Co.

For Heating and Ventilating

Owners of buildings requiring the installation of heating and ventilating equipments are invited to negotiate with the American Machine & Manufacturing Co. of Charlotte, N. C. This company is active in contracting for these installations. It now has work under way for Millers Park, Jackson St. and New High School buildings at Lynchburg, Va.; Billingsley Hospital at Stateville, N. C.; Presbyterian Church at Danville, Va.; Duke Memorial Methodist Episcopal Church at Durham, N. C.; for residence of D. A. Overby, president of the Danville National Bank at Danville, Va.; residence of J. E. Perkins, president of the Tobacco Storage Warehouse, at Danville.

Richard B. Owen, Patent Attorney

Among the well-known patent attorneys of Washington is Richard B. Owen. His business is growing very rapidly, as is indicated by the fact that its volume during January was more than 24 times greater than during the corresponding month of 1910. This is a very creditable growth and largely due to the fact that Mr. Owen gives his clients' affairs his personal attention. Perhaps the

[Continued on Page 72.]

NORTHERN CENTRAL RAILWAY COMPANY.
 GENERAL OFFICE.

Baltimore, Md., February 17, 1911.

The Board of Directors submit herewith to the Stockholders of the Northern Central Railway Co. a synopsis of their Annual Report for the year 1910:

Operating revenues—all lines directly operated..... \$12,798,628 31

Operating expenses..... 10,781,469 06

Net operating revenue..... \$2,017,159 25

Outside operations..... 11,112 55

Total revenues..... 11,123 55

Total expenses..... 4,248 58

Net revenue..... 6,864 37

Total net revenue..... \$2,024,023 62

Taxes on Northern Central Railway and leased lines..... 440,885 77

Operating Income..... \$1,583,137 85

Deduct rentals paid roads operated on basis of net revenue..... 96,904 90

Net operating revenue of the Northern Central Railway Co..... \$1,486,232 95

To which add:

Interest on investments..... \$38,308 40

Interest General Account, rents and other items..... 496,577 10

Gross Income..... 1,425,245 50

Deduct:

Fixed rentals of leased roads..... \$302,984 04

Interest on funded debt..... 347,315 00

Hire of equipment, interest on mortgages and ground rents, interest

Car Trusts and other items..... 412,053 72

1,062,352 76

Net Income..... \$1,859,125 69

From this amount the following amounts have been deducted:

Portion of Principal of Car Trusts..... \$24,577 69

Cash dividends aggregating 8 per cent..... 1,547,400 00

1,571,977 69

Balance transferred to Extraordinary Expenditure Fund..... \$287,148 00

Amount to credit of Profit and Loss 31st December, 1909..... \$3,066,389 18

Add adjustment of road and equipment expenditures in prior years..... 6,638,155 77

9,704,544 95

Less adjustment of sundry accounts..... 47,153 72

Balance to credit of Profit and Loss 31st December, 1910..... \$9,657,391 23

GENERAL BALANCE SHEET (CONDENSED), 31ST DECEMBER, 1910.

Assets.

Property Investment: Road and equipment..... \$30,156,286 67
Securities owned..... 2,049,761 00

Other Investments: Advances to proprietary, affiliated and controlled companies for construction, etc..... \$75,967 77
Miscellaneous investments..... 3,845 03

Working Assets: Cash..... \$2,942,737 61
Securities issued or assumed—held in treasury..... 12,000 00
Marketable securities..... 4,760,526 45
Net balance due from agents and conductors..... 553,485 55
Miscellaneous accounts receivable..... 519,162 29
Materials and supplies..... 657,869 80

Deferred Debt Items: Temporary advances to proprietary, affiliated and controlled companies..... \$60,000 00
Cash and securities in Sinking and Redemption Funds..... 557,000 00

Cash and securities in Insurance and other Reserve Funds..... 1,250,976 43

Working Funds and other Deferred Debt Items..... 18,308 52

1,886,284 95

Total..... \$43,588,917 12

Liabilities.

Capital Stock: Mortage, bonded and secured debt..... \$19,343,243 75
Working Liabilities:

Audited vouchers and wages unpaid..... \$795,712 87

Miscellaneous accounts payable..... 645,282 04

Matured interest, dividends and rents unpaid..... 744,826 09

2,218,929 91

Accrued Liabilities Not Due: Unmatured interest, dividends and rents payable..... \$123,891 25
Taxes accrued..... 197,676 20

321,567 45

Deferred Credit Items: Appropriated Surplus: Additions to property since 30th June, 1907, through Income..... \$1,480,921 21

Reserves from Income or Surplus: Invested in Sinking and Redemption Funds..... 557,397 38

Invested in other Reserve Funds..... 1,250,976 43

Car Trust Principal charged out in advance..... 455,296 13

Extraordinary Expenditure Fund..... 898,765 75

4,643,356 90

Profit and Loss: Total..... 9,657,391 23

\$43,588,917 12

TRAFFIC.

The number of tons of freight moved was 22,583,012, an increase of 1,471,161, or 6.97 per cent. The number of passengers carried was 5,150,217, an increase of 324,006, or 6.94 per cent.

GENERAL REMARKS.

The General Income Account shows that the Gross Revenue increased 4.44 per cent. over 1909, while the Operating Expenses increased 12.57 per cent. The large increase in the Operating Expenses is due to the general increase in wages of all employees receiving less than \$300 per month, and various adjustments which have been made during the year amounting to about \$320,000, and to the greater general outlay required for the renewal, replacement and upkeep of your roadway, bridges and stations, and to heavier repair charges on your freight and passenger equipment. There is also included in the Maintenance Expenses for the year the extraordinary replacement charges, aggregating about \$463,000, connected with the demolition and rebuilding of Union Station, Baltimore, and its track and approaches; Sunbury Yards and facilities now concentrated at Northumberland, and Mount Vernon repairing and engine-house facilities removed to Orangeville.

It will also be noted that your taxes, like those of other companies, show a great increase, amounting to over \$84,000, and as the result of these increased expenses, and the increase of over \$5,000 in your portion of the advances to the Elmira & Lake Ontario Railroad Co. to pay necessary construction expenditures and its fixed charges and other expenses which could not be defrayed out of its revenues, your Net Income for the year, after the payment of all other obligatory charges, amounted to \$1,859,125.69, a decrease of over 29 per cent.

After the payment of the regular semi-annual dividends, aggregating 8 per cent., and deducting one-half of the total amount of Car Trust Principal due by your Company, amounting to \$24,577.69, the balance of Net Income, \$287,148, was transferred to the Extraordinary Expenditure Fund.

The Construction, Equipment and Real Estate expenditures for the year aggre-

gated \$1,703,042.18, and consisted mainly of the items hereinafter named, which have been explained in previous annual reports:

Right of Way: For Orangeville Engine-house and Machine Shops (portion of cost)..... \$28,888 88

Construction: Baltimore Union Station..... 472,259 84

Changes in Mt. Vernon Yard..... 54,293 51

Northumberland Classification Yard (portion of cost)..... 600,296 60

Orangeville Engine-house and Machine Shops (portion of cost)..... 42,392 17

Equipment: Rebuilding Pool Freight Cars..... 92,153 18

Of this amount, \$1,191,268.01 was charged to Capital Account, and the remainder against your Extraordinary Expenditure Fund, leaving a balance, including the amount transferred from Income for the year, of \$898,795.75 in the latter account.

Substantial progress has been made on the new Union Station at Baltimore, and the necessary changes in tracks and other station facilities at that point, which are also used by the Philadelphia, Baltimore & Washington Railroad Co. This work will doubtless be finished during the present year.

The new Northumberland Classification Yard, for the joint use of the Northern Central Railway Co. and the Pennsylvania Railroad Co., is also nearing completion.

The enlargement of the Mt. Vernon Yards, Baltimore, for use in the classification of north and south bound freight traffic, also referred to in your last annual report, is actively under way, and should be completed in the current year.

The new yard and engine-house at Orangeville, which is being built for the joint use of your Company and the Philadelphia, Baltimore & Washington Railroad Co., to effect a consolidation of facilities and avoid as far as possible the housing of locomotives in the city of Baltimore, is almost completed.

A new lease for 99 years was consummated with the Lykens Valley Railroad & Coal Co. of its railroad extending from a connection with your railroad at Millersburg to the anthracite coal fields near Williamsburg, Pa., which became effective July 1, and the short-term arrangement under which your Company had previously operated that line was cancelled. The new lease was made on the favorable basis of an annual rental of \$24,000, which is equivalent to 4 per cent. per annum on its capital stock, and the necessary corporate organization expenses and taxes.

Construction expenditures aggregating almost \$54,000 were necessary on the Elmira & Lake Ontario Railroad for improvements in engine and shop facilities near Elmira, and that company, which is owned by your Company, being unable to pay that amount and the sum required to meet its fixed charges and operating deficit, your Company advanced its proportion of the deficit, the balance having been paid by the Pennsylvania Railroad Co. pursuant to agreement.

There were 6861 tons of new steel rails and 225,437 crossties used in repairs and renewals during the year.

At the instance of certain minority stockholders, representing substantial holdings, your Board on January 20, 1910, appointed a Special Committee to consider a lease of the railway and property of this Company to the Pennsylvania Railroad Co., which had on previous occasions been considered, but failed owing to lack of unanimity among the stockholders. While this committee was investigating the subject, the stockholders at the last annual meeting adopted a resolution pursuant to which a minority stockholders' committee was appointed and recognized by the Board of Directors. After an extensive examination of the accounts, contracts and agreements of the Company, and the employment of an expert in railroad affairs to advise them as to the fair value of the railway and other property of this Company under a lease, or otherwise, the Minority Stockholders' Committee conferred on several occasions and finally reached a consensus with the Board Committee on the general basis of a lease, and united in the recommendation that a lease be made on the general basis of a guaranteed dividend of 8 per cent. per annum upon the capital stock after the same had been increased by a 40 per cent. stock dividend, and also the payment of a 10 per cent. cash dividend on the present stock; the lessee to also assume the payment of all present and future fixed interest obligations and charges and the expense of maintaining the corporate organization of your Company. After extended negotiations with the Pennsylvania Railroad Co., that company agreed to accept a lease upon the terms and conditions above stated. The full reports of both committees, explaining in detail the terms and conditions of the proposed lease, and the action of the boards of the respective companies approving the lease, were sent to all the stockholders, and, in accordance with notice duly given, the proposed lease by this Company to the Pennsylvania Railroad Co. of all of its railway, property and franchises for the term of 99 years was finally approved at the stockholders' special meeting in Baltimore, November 3, 1910. No more convincing evidence of the very favorable leasehold terms and conditions obtained for the stockholders of this Company can be offered than to state that the lease was approved by the vote and consent of shareholders representing over 93 per cent. of the total outstanding stock of the Company, while the increase of the capital stock necessitated by the lease was approved by a slightly smaller vote. Had it been practicable to directly communicate with other shareholders, scattered through this country and other parts of the world, the approving vote would doubtless have been larger. It is rare that an important lease of this character, which after its due approval by both companies is now before the Public Service Commission of Maryland for approval, as required by law, commands such general interest on the part of the stockholders and obtains such an unquestionable mandate for its approval and execution. A very small number of the minority stockholders are, however, seeking to prevent this lease by suits instituted and now pending in the United States Circuit Court of Maryland and in the United States Circuit Court of the Eastern District of Pennsylvania. The Pennsylvania Railroad Co., the proposed lessee, has by action of its directors taken the prudent course of declaring that it shall not be required to execute and accept the said lease, if approved by the Public Service Commission of Maryland, or to take possession of the railway and property of this Company until each of the two above-mentioned suits against this Company and the Pennsylvania Railroad Co. shall be adjudicated, or until the proposed lessee shall be advised by its general counsel that it may legally and properly do so prior to any adjudication in the said pending suits.

There were carried on the rolls of the Pension Department at the end of the year 207 employees, and the pensions paid during the year amounted to \$50,267.35. To cover this Company's portion of the additional expenditure for pensions during the year, your Board found it necessary to expend an additional sum of \$7,267.35, which you are asked to approve.

The pension appropriation must naturally be expected to become larger, as the result of various changes in employees wages, the length of service of those retired, and the growth in the number of retirements under the 65 to 69-year clause of the Pension Regulations, which, in the best interest of the service, it is not wise to restrict.

The stockholders will therefore be requested to also authorize an increase in the annual sum set apart for pension purposes from \$43,000 to \$67,000.

Mr. Max Riebenack, who had been in the service of your Company for over nine years, the last five years as Comptroller, died on May 14, 1910. Mr. Riebenack was also a member and Secretary of the Board of Officers of the Pension Department and a member of the Advisory Committee of the Employees' Voluntary Relief Department. The Board record with great regret the loss of an efficient and faithful officer.

To fill the vacancy existing in the Accounting Department caused by the death of Mr. Riebenack, the following promotions were made, effective June 1, 1910: C. M. Bunting, Comptroller; E. A. Stockton, Deputy Comptroller, and J. S. Donaldson, Assistant Comptroller. And effective October 1, 1910: W. B. Kraft, Auditor Miscellaneous Receipts and Accounts, and C. E. Ward, Assistant Auditor Miscellaneous Receipts and Accounts.

Mr. Stephen W. White, Secretary, having reached the age of 70 years on July 16, formally retired on July 31, under the provisions of the Pension Department. He was Assistant Secretary from 1875 to 1877, and since that time has been Secretary of the Company. During this long term of service Mr. White ably and faithfully discharged his duties.

Lewis Neilson was elected Secretary, Robert H. Groff was appointed Assistant Sec-

retary, effective August 1, and J. T. Wilcox, Assistant to the Secretary, effective October 15.

The following appointments were also made during the year:

In the Traffic Department, Mr. J. G. Searles, who had served acceptably for many years as General Coal Freight Agent, was relieved from active service on account of ill-health, and R. H. Large, Coal Freight Agent, was appointed to succeed him; Walter Thayer was appointed Assistant General Freight Agent; D. N. Bell, Assistant General Passenger Agent, and Joseph Richardson, Assistant to the Third Vice-President, all of these appointments being effective June 1, 1910.

Horace C. Booz was appointed Assistant Chief Engineer, effective January 1, 1911. J. C. Johnson was appointed Superintendent of Telegraph, effective January 15, 1910.

During the year the capital accounts of your Company were increased \$6,638,155.77, distributed as between Cost of Road, \$6,057,252.02, and Cost of Equipment, \$580,903.75, representing a portion of expenditures for new construction, equipment and real estate during the 10 years ended December 31, 1900, heretofore expended out of surplus income, and which have not been heretofore entered in your capital accounts. This action was taken to place upon your books the cost of additions and betterments, which were, in the judgment of the Board, properly considered a capital investment, and also, with other changes, to conform to the uniform accounting regulations and new form of General Balance Sheet promulgated by the Interstate Commerce Commission, and the State of Maryland.

By order of the Board.

JAMES McCREA, President.

Stockholders may obtain pamphlet copies of the annual report by applying to or addressing H. D. Thompson, Assistant Treasurer, General Office, Southeast corner Calvert and Centre streets, Baltimore, Md.; J. W. Marshall, Assistant Treasurer, 85 Cedar street, New York city; Lewis Neilson, Secretary, Executive Office, Broad Street Station, Philadelphia, Pa.

[Continued from Page 70.]

best criterion of the value of his services to inventor and manufacturer is the demand for patents procured through him, as evidenced by many letters which he has received from such well-known manufacturers as the Westinghouse Electric & Machine Co., the General Electric Co., the L. C. Smith & Bros. Typewriter Co. and others. Mr. Owens is the author and publisher of a number of books on patents, copies of which he will send to inquirers.

Assuming Sound Financial Basis.

An announcement of industrial interest has been made concerning the George V. Cresson Company, engineer, founder and machinist, Allegheny Ave., west of 17th St., Philadelphia, which recently went under control of Webster King Wetherill as receiver. The receiver states that the company is undoubtedly solvent and that he is continuing operations as heretofore and expects in a short time to have the receivership terminated and the company rehabilitated on a sound financial basis. The George V. Cresson Company is one of the oldest and most important companies manufacturing power-transmission machinery of various kinds, and is also an important manufacturer of crushing rolls for ores, rock and similar materials.

Automatic Passenger Recorders.

The Automatic Register Co., Dover, Del., which recently purchased all patents, machinery, stock and other assets of the American Fare Register Co. of St. Louis, has secured a long-term lease upon the first floor of the Metropolitan Bldg., Fifth and Missouri Aves., East St. Louis, Ill., owned by Judge Wm. P. Launtz, and has equipped its plant with improved machinery. This company owns several patents upon certain automatic passenger recorders, which it is manufacturing for various railway companies, and will employ several hundred skilled mechanics. The company is capitalized at \$1,000,000, which has been subscribed and paid, the controlling interest being owned by Adolphus D. Branham of Virginia; Judge Wm. P. Launtz, City Attorney for East St. Louis, Ill.; Paul W. Abt, vice-president Illinois State Trust Co. Bank, East St. Louis, and Ernest Lane of Springfield, Ill.

Thomas Glazed Cement Sewer Pipe.

A machine for manufacturing glazed cement sewer pipe is known as the Thomas glazed cement sewer pipe machine, which will make standard bell-end sanitary sewer pipes in sizes from 4 inches to 30 inches in diameter. This machine is made with two revolving tables and a movable carrier on each end. A pipe mold is placed on the revolving table and a steel core is lowered, the concrete mixture being conveyed from hoppers above and forming a positive feed to the mold. A mechanical tamper is started and a bell-end pipe with a glazed interior is produced complete at one operation. The machine is installed ready for operation, and, owing to the low cost of installing a plant, it is claimed to be possible to operate with profit at any point where large quantities of sewer pipe will be used. For information regarding this device, its installation and operation, inquiries are invited by Will A. Curless, 801 Lowman Bldg., Seattle, Wash.

Link-Belt Company.

The New River Collieries Co., a subsidiary of the American Smelting & Refining Co., 165

Broadway, New York, has placed orders with the Link-Belt Company, whose Eastern works are located at Nicetown, Philadelphia, for equipping three coal tipplers for No. 1, No. 5 and No. 6 plants at Eccles, W. Va. Each equipment is to be complete, consisting of "Link-Belt" dumping hoppers, shaking screens, picking bands, chutes, etc., all excellent types for modern West Virginia tipple practice. The machinery, which is to be electrically driven, will be designed, constructed and erected by the Link-Belt Company, Philadelphia, Chicago, Indianapolis. This company manufactures elevating and conveying machinery, power-transmission chains and machinery, crushers, all kinds of gearing, screw conveyors, chains and sprocket wheels, "maximum silent chain" for motor drives and high speeds, pulleys, friction clutches, etc.

Leather Belting, Dressing and Laces.

Appreciating the fact that it would be in a better position to handle Southern trade by having the necessary equipment for making its product close at hand, the Bonner & Barnewall Company, manufacturer of pure oak-tanned leather belting (both waterproof and ordinary), hydraulic pump and lace leathers, belt dressing and belt cement, with main offices and plant at 113 Hudson St., New York, has in operation in Charlotte, N. C., such a plant for the manufacture of its goods under the management of B. C. Cook. As evidence that its belting is meeting with favor in the South, a contract has been closed with the Parker Cotton Mills Co. to supply the following mills with belting needed throughout the current year: Victor Manufacturing Co., Greers, S. C.; Apalachee Mills, Arlington, S. C.; Capital City Mills, Columbia, S. C.; Monaghan Mills, Greenville, S. C.; Richland Cotton Mills, Columbia, S. C.; Olympia Cotton Mills, Columbia, S. C.; Granby Cotton Mills, Columbia, S. C.; Greers Mills, Greers, S. C.; Beaver Dam Mills, Edgefield, S. C. The company has also a contract with the Atlantic Coast Lumber Corporation, Georgetown, S. C., for such belting as it may need. It also has a number of other good orders.

Fairbanks, Morse & Co.'s Exhibit.

Fairbanks, Morse & Co., Chicago, Ill., are at their regular place in the New York Motor Boat Show this year, which began February 21, and attract particular attention to their exhibit by showing sectionalized engines in operation. These include one seven-horse-power two-cylinder type "E" engine and one six-horse-power single-cylinder type "G." By these engines visitors are able to inspect the internal operation of the machine when in service, the exact design and principle of operation, workmanship and high-grade material used in its construction. One of the special features of this company's exhibit is an attractive railing made of inverted anchors and anchor rope, enclosing a splendid display of modern gasoline motors. A 3½-horse-power single-cylinder and a 7-horse-power double-cylinder type "E" model are on exhibit, also one each of the 6-horse-power single-cylinder, 12-horse-power double-cylinder, 18-horse-power three-cylinder and 24-horse-power four-cylinder type "G" models. Both types "E" and "G" are of the two-cycle three-port construction, the former being the well-known solid head and split-base model, permitting easy access to all working parts. Type "G" engines in outward appearance seem to be the same as 1910 model, but a number of improvements

have been made. Plunger or rotary pumps will be furnished with this model, jump-spark or make-and-break ignition can be had, and the positive feed oiling system, with centrifugal ring oilers to the cranks, has been retained, as also the roller contact timer.

Case Exhibits at County Fairs.

One of the time-honored institutions in the rural life of America is known as the county fair. For many years each county has held its fair, which as a business institution has received more consideration than casual observers would imagine. Great agricultural machinery corporations have looked upon it much as the stock broker looks upon the stock exchange or the farmer upon market day. It was the day when large companies came directly in contact with their purchasers. They showed in the old days their primitive plows, wooden agricultural machinery, hand-power machinery of all kinds, and as steam superseded hand-power in other industries of the world it did in the agricultural industry. The J. I. Case Threshing Machine Co. sends to almost every State fair or exhibition an extensive exhibit in which are included many lines of all steel threshing machines, steam lift engine gang plows, farm tractors, and traction engines for hauling plows and general farm work, and to demonstrate the tremendous pulling power of its engines it has been shipping a steel incline, which is built at an angle or grade of from 30 to 50 degrees. During the climbing of the incline for the amusement of the crowd another engine connected by a steampipe to a calliope or steam piano plays patriotic and popular airs. Among other exhibits for the last year were Case automobiles. Wishing to keep abreast of the times the Case company has decided to make an aeroplane and introduce it to the public this season. The plane will be flown in competition with other aviators at the fairs, and after its flights will be placed in the Case tent with other Case machinery.

TRADE LITERATURE.

The American Clay Magazine.

The American Clay Magazine, a journal devoted to the interests of clayworkers, has been issued for February. This publication is being distributed by the American Clay Machinery Co., Bucyrus, O., and contains interesting illustrative and descriptive data.

The Claycrafter for January.

The January number of the Claycrafter, a publication dedicated to the arts and science of claycrafting, has been issued by the C. W. Raymond Company, Dayton, O., manufacturer of clayworking machinery of various kinds. In addition to a view of the Raymond factories and photographs of various officials of the Raymond company, the publication also presents an interesting article on the "Birth and Development of Modern Brick Machinery."

Cotton Chats for January.

The January number of Cotton Chats, a monthly publication issued by the Draper Company of Hopedale, Mass., is now being distributed. The publication presents a new and attractive heading, and contains interesting data relative to Northrop looms, which are products of the Draper Company. During 1909 and 1910 the company shipped 45,244 Northrop looms, and its unfilled orders on January 1, 1911, were for 10,662. For the five weeks ended February 4, 1911, it received orders for 10,128 Northrop looms, and its total orders for 1911 to and including February 4 were for 20,730.

Atlas Paint Co.

The Atlas Paint Co. of Nashville, with branch offices at New York and Chicago, has issued a pamphlet called "Paint Pointers by a Gas Man," which, as its name implies, is of particular interest to managers of gas plants requiring paints for any of their departments. It gives "paint pointers" and a statement of the origin of the paints sold by the company, prices, etc. This company will issue other pamphlets covering the subject of paints in general, and will also prepare special information regarding paints for preservation from corrosion of steel and iron structures.

Mechanical Brick Setting.

The use of mechanical appliances for brick setting is universally recognized by operators of brick manufacturing plants and others who handle large quantities of brick as the means of saving considerable time and labor. A system of mechanical brick setting which has been widely introduced is the Penfield system, manufactured and installed by the American Equipment Co., Bucyrus, O. With the use of this system it is

claimed that one machine operated by a craneman with a helper will handle as many brick in a day as can 30 to 60 men. The installation and operation of the Penfield system for brick setting is described and illustrated in a booklet which the American Equipment Co. is distributing.

Myers Spray Pumps.

A catalogue which illustrates and comprehensively describes the complete line of Myers spray pumps and fittings has been issued by F. E. Myers & Bro., manufacturers of force and lift pumps, hay tools, etc., Ashland, O. This publication tells of hand, bucket, barrel and power spray pumps; nozzles, fittings, etc., and everything needed for spraying, from the small bucket spray pump used in the garden or dooryard to the larger power outfit used by large orchardists and horticulturists. It also presents a short treatise giving important and necessary information about spraying, together with a list of formulas for the proper mixtures to be used and a calendar showing the proper time for applications.

"Detroit-Fenestra" Window Sash.

"Detroit-Fenestra" solid steel window sash in standard sizes was first offered to builders about three years ago. Since then it has been widely introduced, with a constantly increasing demand for the product. This sash is manufactured by the Detroit Steel Products Co., Detroit, Mich., and in its construction the experimental department of the company is constantly adding new and practical features. Present facilities for its manufacture, together with the ever-increasing demand for this class of construction, make it possible for the company to offer steel sash in such quantities and varieties of types, dimensions and varying ventilations as to fill almost any requirement. A catalogue which the company is distributing illustrates and describes the construction and application of "Detroit-Fenestra" solid steel sash and presents views of important structures in which it has been used.

OBITUARY.

Death of Simeon Farwell.

Simeon Farwell, president of the John V. Farwell Company, wholesale dry goods, Chicago, died recently at his residence, 1433 Hinman avenue, Evanston. He had been ill since September 1, and on November 7 was compelled to suffer the amputation of one of his legs. Mr. Farwell was born March 22, 1831, at Campbeltown, N. Y., and married Ebenette Smith at Sardinia, N. Y., in 1857. He was one of the early settlers in Chicago, going to that city in July, 1849, and was at one time deputy clerk of the Circuit Court, later becoming connected with the old banking-house of George Smith & Co. He began his career in the dry goods trade as an employee of Cooley, Wadsworth & Co., and a few years later was admitted as a partner in the John V. Farwell Company, of which he became president, as the successor to his brother, the late Charles B. Farwell. For many years he managed the credits of the firm, and became personally known to thousands of merchants all over the West. Many of them, or their sons, are still on the books of the company. He is survived by four children.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., February 22.

The Baltimore stock market was not so active during the past week as it was of late. Nevertheless, there was a fair amount of business.

In the trading United Railways common sold from 17½ to 17¾; do. trust certificates, 17½ to 17¾; do. incomes, 62½ to 62½; do. funding 5s, 85½ to 86; do. scrip, 85 to 86; United 4s, 84½ to 84½; do. equipment 5s, 1912, 100; Consolidated Gas, Electric Light & Power common, 88 to 86, with last sale at 87; do, preferred, 98 to 97; do. do, 41½s, 87½ to 86½; do. notes, 99½ to 99¾; Consolidated Gas 5s, 100; do, 41½s, 96½; Seaboard Air Line common, 23 to 22½; do. preferred, 37½ to 39½; Seaboard Company common, 23 to 25; do. first preferred, 82 to 82½; do. second preferred, 48½ to 53½, with last sale at 52; Seaboard 4s, stamped, 87½ to 87; do. three-year 5s, 100%; do. 10-year 5s, 100%; do. adjustment 5s, 76; Consolidated Cotton Duck preferred, 20; Mt. Vernon-Woodberry Cotton Duck 5s.

MANUFACTURERS RECORD.

73 1/4 : G. B. S. Brewing incomes, 7 1/2 ; do. 4s, 45 to 44 1/4.

Bank stock sold as follows: Western, 39; First National, 146 to 147; Exchange, 162 1/4; Mechanics', 28 1/4.

United States Fidelity sold from 163 to 165 1/4; Mercantile Trust, 144; Baltimore Trust, 164; Colonial Trust, 28; Maryland Casualty, 97 1/4 to 97; American Bonding, 78 1/2; Continental Trust, 205; Fidelity & Deposit, 157; Maryland Trust common, 83 1/4 to 84.

Other securities were traded in thus: Houston Oil, 8 to 8 1/2; do, preferred, 47 to 52; Georgia Southern & Florida 5s, 100 1/2; Carolina Power & Light 5s, 92 1/2; Georgia & Florida common, 10 to 12; do, preferred, 19 to 20; Norfolk Railway & Light stock, 22 1/2; do, 5s, 90 1/2 to 90 1/4; Alabama Consolidated Coal & Iron 5s, 84; do, common stock, 35; do, preferred, 60 to 62; Consolidation Coal, 103 to 102 1/2; Norfolk & Portsmouth Traction 5s, 85 to 85 1/2; do, new stock, 36 1/2; do, preferred, 75; Northern Central Railway stock, 124 1/4 to 125; Anacostia & Potomac 5s, 100 1/2 to 100 1/4; do, guaranteed, 103; Baltimore Electric 5s, stamped, 90 1/2 to 91 1/4; Atlantic Coast Line consolidated 4s, 94; do, of South Carolina 4s, 96 1/4; Fairmont & Clarksburg Traction 5s, 98 1/2 to 98 1/4; do, preferred stock, 77 1/4; Georgia Pacific 1sts, 113; Baltimore, Sparrows Point & Chesapeake 41 1/2s, 96 to 96 1/4; Georgia & Alabama Consolidated 5s, 104 1/2 to 104 1/4; Coal & Iron Railway 5s, 101 to 101 1/2; Central Railway (Baltimore) 1st 5s, 108; Baltimore City 3 1/2s, 1980, 90; Lynchburg 41 1/2s, 1939, 101 1/2; Seaboard & Roanoke 5s, 106 1/2; Jamison Coal & Coke, George's Creek 5s, 91 1/2; do, scrip, 90; Maryland Electric 5s, 97 1/2; Baltimore City Passenger 5s, 100%; Pennsylvania Water & Power 5s, 87; City & Suburban (Baltimore) 5s, 105%; West Virginia Central 6s, 100%; Fairmont Coal 5s, 97.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended February 22, 1911.

Railroad Stocks. Par. Bid. Asked

Atlantic Coast Line.....	106	121 1/2
Atlantic Coast of Conn.....	100	228 253
Charleston Consol.....	50	32
Fair. & Clark's Trac. Pfd.....	100	76 78 1/2
Ga. So. & Fla. 3d Pfd.....	100	70 73
Macon Ry. & Lt.....	100	80
Norfolk Ry. & Lt.....	25	22 1/2
Seaboard Co. Com.....	100	242 245
Seaboard Co. 1st Pfd.....	100	83 86
Seaboard Co. 2d Pfd.....	100	51 53
United Rys. & Elec. Co.....	50	17 1/4 17 1/2

Bank Stocks.

Bank of Baltimore.....	100	150 151
Bank of Commerce.....	15	30 1/2 32
Exchange.....	100	102 1/2 163
First National.....	100	146 148
Howard.....	10	13 1/2
Maryland.....	20	24 25 1/2
Merchants'.....	100	181 185 1/2
Marine.....	10	43
Mechanics'.....	10	29
Old Town.....	10	15
Union.....	100	130 138
Western.....	20	38 40

Trust, Fidelity and Casualty Stocks.

American Bonding.....	25	78 78 1/2
Baltimore Trust.....	100	164 165 1/2
Colonial Trust.....	50	29
Fidelity & Deposit.....	50	156 1/2 158
Fidelity Trust.....	100	216 229
Maryland Casualty.....	25	97 1/2
Maryland Trust.....	100	83 1/2 84
Maryland Trust Pfd.....	100	106 110
Merc. Trust & Deposit.....	50	145
Union Trust.....	50	70 1/2
U. S. Fidel. & Guar.....	100	164 167

Miscellaneous Stocks.

Ala. Con. Coal & Iron.....	100	35 40
Ala. Con. Coal & Iron Pfd.....	100	60 67
Con. Cot. Duck Com.....	50	5 7
Con. Cot. Duck Pfd.....	50	20 20 1/2
Con. Gas. E. L. & P. Com.....	100	83 1/2 87
Consolidation Coal.....	100	100 103
G. B. S. Brewing Co.....	100	1/2 2 1/2
Mer. & Miners' Trans. Co.....	100	74 81

Railroad Bonds.

Atlantic Coast 1st 4s.....	92 1/2	94
At. Coast Debent. 4s.....	97	97 1/2
At. Coast Conn. 4s. Cfs. 5-208.....	92	92
At. Coast S. C. Cfs. 101	101	101
At. Coast S. C. 4s.....	97 1/2	97 1/2
Balto. & Harrington 5s.....	105	105
Balto. & Harrington Ext. 5s.....	104	104
Carolina Central 4s.....	92	92
Charleston & West. Car. 5s.....	105 1/2	106 1/2
Coal & Coke Railway 5s.....	92	92
Col. & Green, 1st 6s.....	106	107 1/2
Georgia & Alabama 5s.....	104 1/2	104 1/2
Georgia & Florida 5s.....	81	81 1/2
Georgia, Car. & North, 1st 5s.....	105 1/2	106 1/2
Georgia Pacific 1st 6s.....	113	113 1/2
Macon, Dublin & Savannah 5s.....	98	98 1/2
Piedmont & Cumberland 1st 5s.....	100	100
Potomac Valley 1st 5s.....	106	111
Sav. Fla. & West. 5s.....	110 1/2	111 1/2
Seaboard Air Line 4s.....	87	87 1/2
Seaboard 4s stamped.....	87	87 1/2
Seaboard Adjustment 5s.....	75 1/2	76 1/2
Seaboard 10-yr. 5s.....	100 1/2	100 1/4
Seaboard 3-yr. 5s.....	100 1/2	100 1/4
Seaboard & Roanoke 5s.....	100	100
Suffolk & Carolina 5s.....	98	99
Virginia Midland 2d 6s.....	100	100 1/2
Virginia Midland 3d 6s.....	100 1/2	100 1/2
Western Maryland 4s.....	88 1/2	88 1/2
Western N. C. Con. 6s.....	106	106
Western Virginia Central 1st 6s.....	100 1/2	100 1/2
Wilmington & Weldon 5s.....	110 1/2	110 1/2

Street Railway Bonds.

Anacostia & Potomac 5s.....	100 1/2	100 1/2
Anacostia & Potomac 5s. Gtd.....	103	103
Atlanta Con. Street Railway 5s.....	105	105
Baltimore City Passenger 5s.....	100	100 1/2
Baltimore, Sp. Pt. & C. 4 1/2s.....	96	96 1/2
Baltimore Traction 1st 5s.....	107	107
Baltimore Traction (N. B.) 5s.....	100	100
Central Railway (Balto.) Ext. 5s.....	108	108
Charleston City Railway 5s.....	105 1/2	104
Charleston Con. Electric 5s.....	96 1/2	96 1/2
City & Suburban 5s (Balto.).....	105 1/2	106 1/2
Fairmont & Clarksburg Trac. 5s.....	102 1/2	103 1/2
Knoxville Traction 5s.....	104	104
Lake Roland Elevated 5s.....	109	109
Lexington Railway 1st 5s.....	85	85
Macon Railway & Light 5s.....	99 1/2	99 1/2
Maryland Electric Railways 5s.....	97 1/2	97 1/2
Memphis Street Railway 5s.....	96 1/2	97 1/2
Metropolitan 5s (Wash.).....	106	106
Norfolk & Portsmouth Trac. 5s.....	85 1/2	86
Norfolk Railway & Light 5s.....	99 1/2	99 1/2
United Railways 1st 4s.....	84 1/2	84 1/2
United Railways Income 4s.....	62	62 1/2
United Railways Funding 5s.....	85 1/2	86

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	85	85
Baltimore Electric 5s, Stp.....	91	91 1/2
Consolidated Gas 5s.....	96 1/2	96 1/2
Consolidated Gas 4 1/2s.....	93 1/2	93 1/2
Con. Gas Elec. Lt. & P. 4 1/2s.....	86 1/2	86 1/2
Con. Gas Elec. Lt. & P. Notes.....	99 1/2	99 1/2
Fairmont Coal 1st 5s.....	97	97 1/2
G. B. S. Brewing 1st 4s.....	44 1/2	45
G. B. S. Brewing Income 5s.....	7 1/2	8
Maryland Steel Co. 5s.....	101	101
Mt. Vernon-Woodb'y Cot. Duck 5s.....	73 1/2	73 1/2
United Elec. Lt. & P. 4 1/2s.....	92 1/2	93

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending February 20.

	Bid	Asked
Abbeville Cotton Mills (S. C.).....	72 1/2	72
Aiken Mfg. Co. (S. C.).....	90	90
American Spinning Co. (S. C.).....	100	105
Anderson Cotton Mills (S. C.).....	50	50
Arkwright Mills (S. C.).....	100	103
Augusta Factory (Ga.).....	50	53
Avondale Mills (Ala.).....	116	125
Beltone Mills (S. C.).....	135	145
Bibb Mfg. Co. (Ga.).....	114	114
Brandon Mills (S. C.).....	100	100
Barabara Cotton Mills (N. C.).....	125	140
Chadwick-Hoskins Mills (N. C.).....	95	95
Chadwick-Hoskins Mfg. Co. (N. C.).....	100	100
Chadwick-Hoskins Mills (N. C.).....	100	100
Clifton Mfg. Co. (S. C.).....	90	90
Clinton Mills (S. C.).....	100	100
Columbus Mfg. Co. (Ga.).....	95	95
Courteau Mfg. Co. (S. C.).....	60	100
Dallas Mfg. Co. (Ala.).....	98	110
Darlington Mfg. Co. (S. C.).....	85	85
Drayton Mfg. Co. (Ala.).....	110	125
Eagle & Phenix Mills (Ga.).....	110	125
Egyptian Mills (S. C.).....	170	170
Enoree Mfg. Co. (S. C.).....	54	54
Enoree Mfg. Co. (S. C.) Pfd.....	100	100
Enterprise Mfg. Co. (Ga.).....	80	85
Exposition Cotton Mills (Ga.).....	195	200
Gaffney Mfg. Co. (S. C.).....	71	74
Gainesville Cotton Mills (S. C.).....	70	70
Granby Cot. Mills (S. C.) 1st Pfd.....	35	35
Hanover Mfg. Co. (S. C.).....	150	150
Hanover Mfg. Co. (S. C.) Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 2d Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 3d Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 4th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 5th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 6th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 7th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 8th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 9th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 10th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 11th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 12th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 13th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 14th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 15th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 16th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 17th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 18th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 19th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 20th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 21st Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 22nd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 23rd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 24th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 25th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 26th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 27th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 28th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 29th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 30th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 31st Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 32nd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 33rd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 34th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 35th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 36th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 37th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 38th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 39th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 40th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 41st Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 42nd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 43rd Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 44th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 45th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 46th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 47th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 48th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 49th Pfd.....	100	100
Hanover Mfg. Co. (S. C.) 50th Pfd.....	100	100</

the St. Louis Union Trust Co.; C. H. Huntington, president of the Third National Bank.

N. C., Greenville.—The Central National Bank is reported to have made application for a charter; capital \$100,000.

N. C., Vass.—The Bank of Vass is reported chartered with an authorized capital of \$50,000. Stockholders: J. A. Keith, D. A. McLaughlin, J. W. Kanner, A. Cameron.

N. C., Winston-Salem.—Official: A bill has been introduced in the General Assembly by ex-Judge H. R. Starbuck to incorporate the Winston Loan & Trust Co.; capital \$500,000; names of incorporators not yet available. Wm. D. Jackson is City Secretary and Treasurer.

Okla., Ashland.—Regarding the report that the Bank of Ashland has been granted a charter, an official letter says that the bank was incorporated in 1905 and has now just increased its capital. The bank has \$5000 capital. A. G. Burke, president; L. G. Pickens, vice-president, and H. G. Rawley, cashier.

Okla., Checotah.—The Oklahoma National Bank has been approved; capital \$25,000. Organizers: R. D. Martin, Checotah; L. A. Johnson, T. M. Price, E. M. Hill and R. B. Robinson.

Okla., Eufaula.—The First State Bank is reported to have begun business; capital \$15,000. Officers: R. L. Simpson, president; Dr. W. A. Tolison, vice-president; Charles L. Follansbee, cashier. Directors: R. L. Simpson, Dr. W. A. Tolison, L. Brown, J. H. Turley and T. T. Pyle.

Okla., Guymon.—Concerning the report that the Beaver County Bank has been chartered, an official letter says that the bank was organized in 1910, and has now increased its capital from \$15,000 to \$25,000.

Okla., Sayre.—A dispatch from Washington reports application to organize the Farmers' National Bank of Sayre with \$25,000 capital.

S. C., Charleston.—The Citizens' Bank is reported to have been granted a commission; capital \$100,000; petitioners, A. W. Litschgi, Sr., G. Sottile, R. L. Brown, M. Rutledge Rivers, John McAllister and H. H. Hirschmann. Business is expected to begin about April 1.

S. C., Fort Mill.—The First National Bank is reported approved; capital \$25,000; organizers, T. S. Kirkpatrick, B. S. Pratt and others.

S. C., Olanta.—The Farmers' Bank of Olanta reported chartered; capital \$10,000; officers, S. J. Tomlinson, president; L. J. McLendon, vice-president, and K. E. Smith, cashier.

S. C., Norway.—The Farmers and Merchants' Bank has been granted a commission; capital \$20,000; petitioners, J. F. Bates, C. T. Fowling, H. P. Fulmer, J. C. Spires, H. E. Garlick, W. G. Sanford, J. D. Garlick, W. C. Williamson, L. B. Fulmer and J. W. Lybrand.

S. C., Smoaks.—Official: The Smoaks Banking Co. chartered; capital \$10,000; J. E. Smoaks, president; H. J. Berry, vice-president, and C. A. Thomas, cashier. Business is to begin in about 60 days.

Tenn., Cookeville.—The Bank of Cookeville is reported to have begun business with directors thus: D. L. Lansden, R. L. Farley, G. A. Maxwell, A. G. Maxwell, J. H. Jared, J. B. Ferguson, J. H. Verble, C. H. Rickman, A. A. Staley, L. D. Johnson and Mike Moore.

Tenn., Hampshire.—The Hampshire Bank is reported to have made application for a charter; capital \$10,000; John T. Akin, president; V. A. McElhanahan, vice-president, and C. A. Ross, cashier.

Tenn., Memphis.—The State Investment Co., capital \$25,000, is reported to have filed application for a charter; incorporators, Peter G. Grant, Alston Boyd, W. P. Halliday, J. W. Red and Guy P. Long.

Tenn., Memphis.—The American Trust Co. is reported to have filed application for a charter; capital \$500,000; incorporators, J. M. Sims, E. L. Hendry, M. Johnson, J. H. Brooks and E. Odle.

Tenn., Memphis.—The American Real Estate Loan Co. is reported to have made application for a charter; capital \$25,000; incorporators, R. W. McLeMORE, T. N. McLeMORE, Jr., Marion C. Minor, E. E. Lowe and W. F. Nestitt.

Tex., Como.—The First National Bank of Como chartered; capital \$40,000; M. C. Lynch, president, and B. E. Morris, cashier.

Tex., Conroe.—The First State Bank of Conroe reported chartered; capital \$10,000; incorporators, A. A. Madeley, Banks Griffith and M. E. Griffith.

Tex., Cross Plains.—Application has been made at Washington, says a dispatch, to

organize the Citizens' National Bank of Cross Plains; capital \$25,000.

Tex., El Paso.—Official: The Two Peoples Life Insurance Co. chartered; capital \$150,000; surplus \$150,000. Business began February 16 with A. Krakauer, president; E. E. Perrenot, vice-president and general manager; Dr. B. M. Worsham, medical examiner, and J. J. Prewitt, secretary.

Tex., Houston.—The Provident Investment Co. is reported chartered with \$20,000 capital; J. C. McKallip, W. T. McKallip and John Hamman.

Tex., Industry.—The First State Bank, capital \$10,000, is reported incorporated by E. Lindemann, H. L. Schulze, L. A. Nelbuh and others.

Tex., Kyle.—The Kyle State Bank is reported to have begun business with Otto Groos, president; O. G. Parke of San Antonio, vice-president, and Will Groos, cashier. This succeeds the Kyle Bank, a private institution.

Tex., Sherman.—The American Bank & Trust Co., it is reported, expects to begin business about March 1 with directors thus: President, W. C. Eubank; cashier, D. S. Thompson, formerly of the First National Bank of Van Alstyne; T. U. Cole, C. B. Dorchester and F. A. Batsell.

Va., Charlottesville.—Press dispatches state that the Charlottesville Perpetual Building & Loan Co. proposes to organize a savings bank.

Va., Luray.—The People's Bank is reported incorporated by E. D. Poulton, W. W. Sommer, F. K. Weaver, D. M. Klipps, D. L. Garrison and H. W. Beatty.

W. Va., Wheeling.—The West Virginia Investment & Improvement Co. is reported chartered to deal in real estate, loans and fire insurance; authorized capital \$25,000; incorporators, Lee C. Paull, J. S. Gibbs, Jr., George C. Beneke, A. Singleton Paull and D. E. Stalmaker of Wheeling.

NEW SECURITIES.

Ala., Florence.—Official: February 7 city voted \$15,000 of 5 per cent. bonds for dormitory for State Normal School. It is understood that these bonds will not be sold until friends of the college have raised at least double this amount. C. W. Ashcraft is Mayor.

Ala., Huntsville.—The question of issuing \$60,000 of municipal bonds for the purpose of paying off outstanding indebtedness is reported under consideration.

Ala., New Decatur.—Reported that \$10,200 of 6 per cent. 10-year water-works bonds have been authorized.

Ala., Seale.—Otto Marx & Co. of Birmingham are reported to have purchased \$100,000 of road-improvement and \$20,000 of public-building 5 per cent. Russell county bonds at a premium of \$240. H. L. Burton is Judge of Probate.

Ark., Van Buren.—The Wm. R. Compton Bond Co. of St. Louis is reported to have purchased at 96 cents net \$175,000 of bonds of Crawford County Levee District; E. L. Matlock is secretary of the commission.

Fla., Jacksonville.—An official letter confirms report that bids will be received until 3 P. M. March 6 for \$100,000 of 5 per cent. improvement bonds; denomination \$1000; dated October 1, 1910; maturity October 1, 1936. Address W. M. Bostwick, Jr., chairman Board of Bond Trustees. Wm. S. Jordan is Mayor.

Fla., Palm Beach.—Official: March 21 an election is to be held to vote on \$55,000 of bonds, \$32,000 being for city dock and seawall and \$23,000 for sewers, streets and fire equipment; maturity 1941.

Fla., Petersburg.—Official: Last bond issue has been sold and city is now considering another bond issue for an electric-light plant. Nothing definite decided upon as yet. Press reports state that an election is to be held April 4 to vote bonds for lights. A. T. Blocker is Mayor.

Fla., Titusville.—Reported voted: \$30,000 of water-works bonds.

Ga., Americus.—City is reported to have sold paving bonds voted three years ago.

Ga., Cairo.—Reported that \$9000 of water-works extension and \$6000 of electric-light bonds were purchased in December by J. B. McCrary & Co. of Atlanta.

Ga., Camilla.—Official: An election has been called to vote on \$20,000 of 5% per cent. 30-year city hall and sewerage bonds.

Ga., Douglasville.—Official: J. B. McCrary Company, Atlanta, Ga., on February 1 purchased \$20,000 of 5 per cent. 30-year water-works bonds; denomination \$1000; dated March 1, 1911; maturity 1941.

Ga., Griffin.—The Georgia Mortgage & Trust Co. of Atlanta, represented by H. J. Harvey, is reported to have been awarded at \$2995 premium \$80,000 of Spalding county public improvement bonds.

Ga., Newnan.—Reported that an election has been ordered to vote on \$50,000 of street-paving bonds.

Ga., Summerville.—An election has been ordered, it is reported, to vote on bonds for water-works, sewerage and street improvements.

Ky., Louisville.—Steps are reported, being taken to issue hospital bonds voted last November.

Ky., Winchester.—Official: \$40,000 of 4 1/2 per cent. 20-year city building bonds were purchased February 3 by the Harris Savings and Trust Bank; denomination \$1000.

La., Ruston.—F. L. Fuller & Co. of Cleveland, O., according to press dispatches, has been awarded \$65,000 of 5 per cent. Ruston School District bonds.

La., Shreveport.—Press dispatches state that a bill has been introduced in the Legislature providing for an election April 4 to vote on \$250,000 of 4 1/2 per cent. 10-year public improvement bonds. J. H. Eastham is Mayor.

Miss., Brookhaven.—The Board of Supervisors of Lincoln county is reported to have voted \$150,000 of road bonds of District No. 1. It is stated \$10,000 will be floated at once.

Miss., Greenville.—Official: Sutherlin & Co., Kansas City, Mo., have purchased \$100,000 of 5 per cent. 30-year Washington county courthouse and jail bonds issued to refund equal amount bearing 7 per cent.; denomination \$1000. W. W. Miller is County Clerk.

Miss., Hazlehurst.—Official: The \$75,000 of 5 per cent. Copiah county road bonds have been sold to Copiah county banks as follows: Bank of Hazlehurst, \$25,000; Bank of Weston, \$25,000; Crystal Springs Bank, \$15,000; Merchants and Planters' Bank, \$10,000. J. H. Long is clerk of chancery court.

Miss., Marks.—An official letter says that town proposes to issue bonds.

Miss., Mendenhall.—Mr. P. H. Saunders, president of the Commercial Bank & Trust Co., Laurel, Miss., writes that he purchased for the bank the municipal bonds issued by Mendenhall for the erection of agricultural high school; also the \$40,000 of Simpson county issue.

Miss., Senatobia.—Official: H. J. Gill, town clerk, is offering for sale \$3000 of 5 per cent. 20-year light and water system extension bonds; denomination \$500; dated February 1, 1911; maturity February 1, 1931.

Miss., Tupelo.—A dispatch says that \$50,000 of bonds will be issued for city hall, enlarging water-works and paving.

Mo., Springfield.—W. B. Cloud, County Clerk, says that city will issue the bonds. J. H. Langston is City Clerk. This probably refers to the proposed issue of \$250,000 of courthouse completion bonds.

N. C., Asheville.—Official: An election is to be held in May to vote on \$50,000 of bonds for improvement and extension of school buildings. July 1 next \$32,000 of bonds are to be refunded. John A. Campbell is Mayor.

N. C., Monroe.—Notice is given that an election is to be held in Monroe and Goose Creek townships March 16 to vote on \$80,000 of bonds in aid of the proposed Salisbury Railway; \$60,000 to be issued by Monroe and \$20,000 by Goose Creek. J. E. Stewart is chairman Board of Bond Trustees.

N. C., Oxford.—J. P. Stedman, treasurer of the Board of School Trustees, will receive bids, it is reported, until noon March 8 for \$20,000 of 5 per cent. school bonds.

N. C., Reidsville.—Press dispatches state that Williamsburg and Reidsville townships have adopted resolutions providing for \$100,000 of road bonds.

N. C., Rockingham.—Bids will be received, it is reported, by B. F. Reynolds, Clerk, Board of Commissioners, until noon March 13 for \$15,000 of bonds; interest not to exceed 6 per cent.

N. C., Waynesville.—Official: \$32,000 of 5 per cent. 30-year water-works improvement and refunding bonds are offered for sale. J. H. Howell is treasurer.

N. C., Wentworth.—Reported that a bill has been introduced in the Legislature providing for \$500,000 of Rockingham county road bonds.

N. C., Whiteville.—Official: Bids will be received by W. Ross Davis, Mayor, until March 20 for \$10,000 of 6 per cent. street-improvement bonds.

N. C., Raleigh.—A bill is reported to have been introduced in the Legislature providing for \$26,000 of improvement and funding bonds.

N. C., Plattsboro.—Official: March 11 election is to be held to vote on \$5000 of 6 per cent. street and sidewalk bonds; maturity 1941. B. Noor is Mayor.

N. C., Salisbury.—Official: Citizens of Salisbury township and other townships lying between Salisbury and Monroe, N. C., will soon vote on the question of issuing bonds for construction of a railway between the two points named. A. L. Smoot is Mayor of Salisbury.

N. C., Salisbury.—Official: City has applied to the Legislature to pass an act authorizing \$50,000 of bonds to take up a former issue which will mature this year and to pay off any floating indebtedness at the time. A. L. Smoot is Mayor.

N. C., Washington.—Bids will be received by W. B. Windley, City Clerk, until noon March 8, it is reported, for \$15,000 of 5 per cent. 30-year refunding bonds; denomination not less than \$100 nor more than \$1000 at the option of the purchaser.

Okla., Muskogee.—Reported voted: \$350,000 of water-works, \$225,000 of sewerage and \$35,000 of garbage disposal plant bonds. A. F. McGarr is Mayor.

Okla., Sentinel.—Reported that an election is to be held early in March to vote on \$15,000 of bonds, \$3000 being for water-works extension and \$12,000 for electric lights.

Okla., Britton.—Reported that an election is to be held to vote on \$20,000 of water and sewer system bonds.

Okla., Heavener.—Reported voted: \$50,000 of water-works bonds.

Okla., Oklahoma City.—Reported defeated: \$1,250,000 of water-works bonds. Reported voted: \$25,000 of city hall and \$375,000 of water and sewer-system bonds. It is stated that it is proposed to hold another election to vote on the water-works bonds. Dan V. Lackey is Mayor.

Okla., Stonewall.—Official: January 20 city voted \$30,000 of 6 per cent. 25-year water-works bonds. Address G. Kitchen.

S. C., Charleston.—Bids will be received until 11 o'clock, February 25, for \$40,000 of 4 per cent. sewerage bonds. J. O. Lea is City Treasurer.

S. C., Cheraw.—Reported that an election will soon be held to vote on \$70,000 of water and sewer bonds.

S. C., Columbia.—Official: Townsend Scott & Son, Baltimore, have purchased \$850,000 of 5 per cent. 30-year refunding bonds; denomination \$1000; dated March 1, 1911. R. W. Shand is superintendent of finance.

S. C., Columbia.—The question of issuing bonds in aid of the South Carolina Agricultural College is reported under consideration.

S. C., Manning.—The \$5000 of refunding bonds recently reported sold are said to have been purchased by Chas. H. Coffin of Chicago at 100.22.

S. C., St. George.—P. M. Judy, Mayor, writes that school district, which includes the town, issued \$15,000 or \$20,000 of bonds. No mention is made in the letter of proposed issue for water-works and electric lights.

Tenn., Chattanooga.—Official: Legislature has authorized refunding \$81,000 of bonds due June, 1911. A bill has also been introduced in the City Council providing for \$55,000 of paving bonds. T. C. Thompson is Mayor.

Tenn., Knoxville.—A bill has been introduced in the Legislature, it is reported, to issue \$150,000 of bonds to refund an equal amount issued by Knoxville Water Co. The bonds were taken by the city when it purchased the water system.

Tex., Austin.—The Attorney-General has approved securities as follows: Hamlin street-paving bonds; \$55,000 of sewer and \$25,000 of water-works 5 per cent. 15-40-year bonds of Lubbock; \$50,000 of 5 per cent. 24-40-year Greenville water-works bonds; \$500,000 of bonds of Houston for construction of concrete and steel viaduct.

Tex., Burnet.—Reported that \$18,000 of 4 1/2 per cent. 5-40-year Burnet county bridge-construction bonds are being offered at par and interest by J. G. Cook, County Judge. Denomination, \$1000. Dated January 10, 1911.

Tex., Burnet.—The Burnet County Permanent School Fund is reported to have purchased \$800 of 5 per cent. 5-20-year bonds of Common School District, No. 15.

Tex., Brady.—Official: March 26 an election is to be held to vote on dam and filter bonds. S. A. Conley is Mayor.

Tex., Brenham.—Bids will be received until March 1 by W. R. Ewing, District Secretary.

[For Additional Financial News, See Page 76.]

Established 1835.

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17 South St., Baltimore, Md.

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Surplus and Net Profits, \$50,000
Resources, \$9,000,000

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TRANSMISSION ROPE

MANUFACTURERS RECORD.

for \$57,000 of 5 per cent. 30-year Levee District building bonds.

Tex., Charlie.—Reported that the town of Charlie, Clay county, proposes to issue \$15,000 of schoolhouse bonds.

Tex., Comanche.—March 25 an election is to be held in Comanche county. It is reported, to decide the question of issuing \$100,000 of 5½ per cent. 10-year road bonds of Commissioners' Precinct No. 1.

Tex., Denison.—Bids will be received until 8 P. M. February 23 for \$50,000 of Series 2 5 per cent. water-works bonds. Denomination, \$500.

Tex., Farmersville.—Reported voted: \$20,000 of school-improvement bonds.

Tex., Georgetown.—Dispatches state that a petition has been presented to the Commissioners' Court by citizens of Boutell-Granger Justice precinct asking that an election be held to vote on \$100,000 of road bonds. It is said the election will be held in March.

Tex., Harlingen.—Reported voted: \$40,000 of school bonds.

Tex., Iredell.—Official: H. N. Swain, Dallas, Tex., purchased \$7000 of 5 per cent. 40-year independent school district building and equipping bonds.

Tex., Kermit.—Bids will be received at once. It is reported, for \$6000 of 5 per cent. 10-40 year Winkler county courthouse bonds; denomination \$1000; dated October 10, 1910. Address J. K. Little, County Attorney.

Tex., Kyle.—Reported voted: \$8000 of school district building bonds.

Tex., Lampasas.—Reported that an election is to be held to vote on bridge bonds.

Tex., Lubbock.—Bids will be received until March 15 by Frank E. Wheelock, Mayor, for \$80,000 of 5 per cent. 40-year sewer and water-works bonds. Denomination, \$1000.

Tex., Menard.—Reported voted: \$20,000 of Menard county bridge bonds.

Tex., Mission.—Reported that Mission School District is offering for sale \$15,000 of bonds. It is said these securities take the place of the \$12,000 of bonds offered last August.

Tex., Olney.—Official: Bids will soon be opened for \$10,000 of 5 per cent. 20-40-year water-works bonds voted February 7, 1911. Address First National Bank of Olney. M. P. McCracken is Mayor.

Tex., Pearsall.—An election is to be held March 25. It is reported, to vote on \$75,000 of Frio county road bonds.

Tex., Polytechnic.—Reported that it is proposed to issue \$50,000 of water-works bonds.

Tex., Rusk.—Reported voted: \$18,000 of 5 per cent. 40-year water-works bonds.

Tex., San Augustine.—March 21, it is reported, bids will be opened for \$25,000 of 5 per cent. 20-40-year water-works bonds. R. H. Hall is Mayor.

Tex., Shackelford.—Reported that \$2500 of 5 per cent. 10-20-year bonds of Shackelford County Common School District, No. 16, are being offered by the County Judge.

SOUTHERN RAILWAY COMPANY

39 Church St., New York, Feb. 17, 1911.
A DIVIDEND OF ONE PER CENT. (1%) out of accumulated income has been declared on the PREFERRED STOCK of the Company, payable April 24, 1911, to stockholders of record at the close of business April 1, 1911.

R. D. LANKFORD, Secretary.

23 Wall St., New York, Feb. 17, 1911.
On April 24, 1911, the Voting Trustees for Preferred Stock Trust Certificates of the Southern Railway Co., WHICH HAVE ASSENTED TO THE EXTENSION AGREEMENT OF AUGUST 27, 1902, will be prepared to distribute the above dividend of one per cent. (1%) when received by them, among the parties entitled thereto, as same appear on record on their books at the close of business April 1, 1911.

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BALTIMORE, MD.

Tex., Snyder.—Official: \$44,400 of 5 per cent. 40-year water-works and sewerage bonds are being offered at private sale; denomination \$1000; dated July 16, 1910. Mac Taylor is Mayor.

Tex., Snyder.—Reported that an election is to be held March 25 to vote on \$16,000 of Scurry county jail bonds.

Tex., Sweetwater.—Jno. J. Ford, County Judge, is reported to be receiving bids for \$100,000 of 5 per cent. 40-year road bonds of Nolan County Road District, No. 1. Denomination, \$1000. Dated February 13, 1911.

Tex., Teague.—Reported that on March 6 an election will be held to vote on \$10,000 of school bonds.

Tex., Trinity.—Official: Bids will be received until 3 P. M. February 20 for \$135,000 of 5 per cent. 10-20-year school district building bonds; denomination \$500. Address J. H. McLaughlin, president School Board.

Tex., Waco.—Reported voted: \$250,000 of municipal light plant bonds.

Tex., Waxahachie.—Bids will be received until 2 P. M. March 10 for \$560,000 of 5 per cent. 10-40-year Ellis county road bonds; denomination \$1000. J. C. Lumpkins is county judge.

Tex., Waxahachie.—Reported that \$25,000 of bonds of Drainage District No. 1, Ellis county, have been sold at par and accrued interest.

Tex., Wichita Falls.—Wichita county is reported authorized to hold an election to

vote on bonds for construction of bridge across Wichita river to cost about \$15,000.

Va., Farmville.—Reported voted: \$20,000 of high-school bonds.

Va., Lebanon.—Reported voted: \$275,000 of Russell county road-improvement bonds.

Va., Madison.—The Richmond Electric & Power Co. has, according to press dispatches, filed a deed of trust with the Clerk of Madison county, providing for \$50,000 of 6 per cent. bonds; \$30,000 to be issued and sold immediately for refunding the company's old debt, and \$20,000 to be used for future extensions and improvements. L. B. Herrington is president of the company.

Va., Roanoke.—Reported that an election is to be held to vote on \$350,000 of improvement bonds, which will include city hall, courthouse addition, library, etc.

Va., Staunton.—An official letter confirms report that the question of issuing \$1,000,000 of bonds for macadamizing roads in Augusta county is being agitated.

Va., South Boston.—J. J. Lawson, chairman, Finance Committee, confirms report that \$3500 of bonds have been sold to local investors. Bonds are balance of an issue city had on hand and did not offer until money was needed.

W. Va., Moundsville.—Official: Bids will be received until March 23 for \$166,900 of 5 per cent. 10-year sewer system bonds. Denomination \$1000 and one of \$900. Dated April 1, 1911; maturity 1921. Address Mercantile Banking & Trust Co., Moundsville.

W. Va., Romney.—Official: Bids will be

received until 8 P. M. March 1 by A. N. McKeever, Mayor, for \$15,000 of 5 per cent. bonds; denomination \$100 or multiple thereof; dated November 1, 1911; maturity March 1, 1931.

At Waynesville, N. C., bids are being received for \$32,000 of 5 per cent. 30-year water-works improvement and refunding bonds. *Further particulars will be found in the advertising columns.*

At Whiteville, N. C., bids will be received until March 20 for \$10,000 of 6 per cent. street-improvement bonds. *Further particulars will be found in the advertising columns.*

FINANCIAL NOTES.

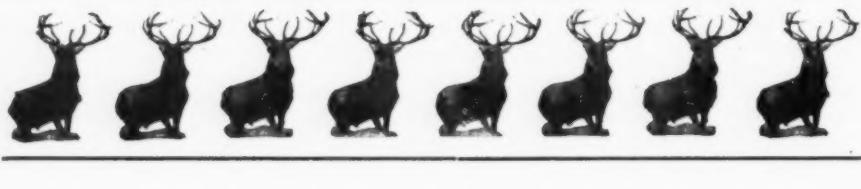
The South Carolina Bankers' Association will hold its annual meeting at Pine Forest Inn, Summerville, April 18, 19 and 20.

The North Carolina Bankers' Association will meet at Kanuga Lake, near Hendersonville, June 21, 22 and 23.

The Louisiana Bankers' Association will meet at Baton Rouge. Date not yet decided.

The Southern Railway Co. has declared a dividend of one per cent. on the preferred stock, payable April 24, to shareholders of record April 1. R. D. Lankford is secretary at 30 Church St., New York.

Information received by the Manufacturers Record says that the Beard Deposit Bank of Beard, Ky., has been changed to the Crestwood State Bank at Crestwood, Ky.



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